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EDITED BY

GUSTAV OPPERT, PH.D.,

PROFESSOR OF SANSKRIT, PRESIDENCY COLLEGE, MADRAS ;

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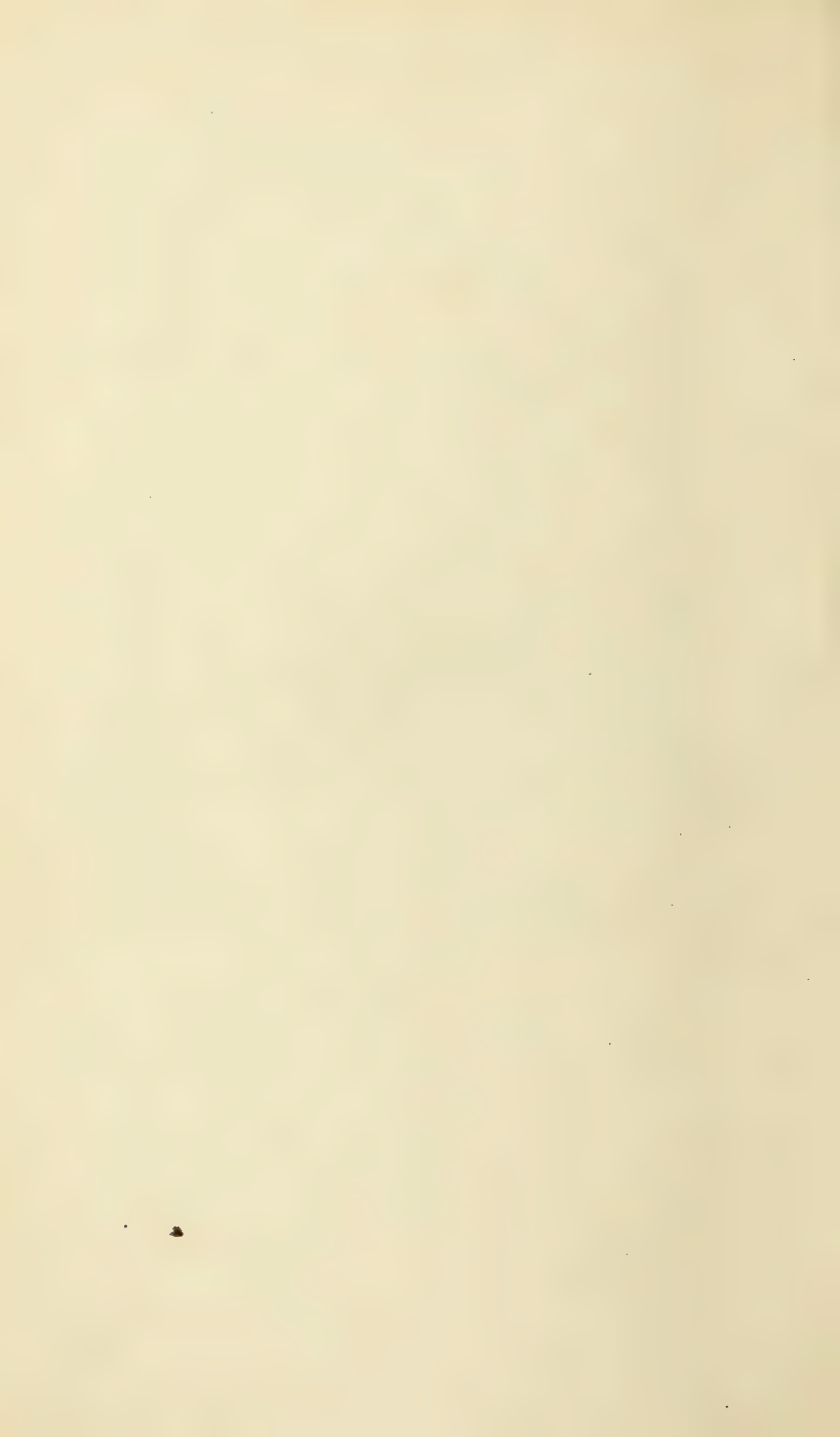
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The Madras Journal of Literature and Science.

HINDU LAW IN MADRAS IN 1714.

NOT the least interesting of the *Lettres curieuses et édifiantes* (1720) is the lengthy epistle written by the Jesuit Father Bouchet to the President Cocher, a great magistrate in France, from Pondicherry in the year 1714, for the purpose of informing him as to the mode in which justice was administered in India. This Father Bouchet stated in a letter of 1700, preserved in Bertrand's *Mission du Maduré* (Paris, 1854), Vol. IV, that he had then spent twelve years in the Madura country, and therefore, when he wrote the epistle now under notice, he must have worked continuously in the Madura Mission during a space of some twenty-six years. And, considering the life he led, travelling on foot from village to village and eating only such food as was proper for the most rigorous ascetic, it is fair to presume that he must have made himself tolerably well acquainted with the manners and customs of all classes of the people of South India. No doubt he saw most things through spectacles of his own, and where he speaks of matters that may not have come under his own personal observation, considerable allowance must be made for the possible mendacity of catechists and dependants, and the reckless obsequiousness of ordinary native informants.

Nor must it be forgotten that it was a necessity of his position for the white Brahman of those days to mix and commune with Brahmans and high-caste folk rather than with Pariahs and Chucklers. And, lastly, a source of error lay open to Father Bouchet in the fact that the dominant class in his time was the Telugus, who, of course, would hold aloof from the subject Tamils, and trouble themselves but little about the institutions and habits of their inferiors. These and other circumstances must not be lost sight of in perusing Father Bouchet's description of the mode of administering justice in the countries in which he was itinerant; and whilst many of his statements must be regarded with suspicion, some doubtless must be rejected as erroneous. But, if only reasonable precautions are taken, much of the matter here presented may, I think, be accepted as substantially correct. And, looked at as a whole, the epistle may be assumed to give a fairly accurate account of a very large and complex subject; whilst to the student of history who interests himself in the state of this country prior to the establishment of the British Government, and to the lawyer who seeks to know the reasons of the so-called Hindu law, it offers a mass of most useful information.

It has recently been suggested by the *Indian Jurist* that this remarkable epistle should be carefully studied by lawyers for practical purposes, and possibly in the course of a few years some one may undertake the task of editing and annotating it. In the meantime I purpose in the present article to attempt to stimulate curiosity by giving a general view of its contents, and offering such remarks as may occur to me, in passing, upon its more important particulars. A few passages I must give entire as written.

Preliminarily it should be observed that the opening part of this epistle has been referred to by Anquetil Duperron and Montesquieu as a principal authority for the proposition

that the Indians have no civil laws, only religious precepts. The mind of the good Duperron was greatly disturbed by the publication of this proposition, and I can hardly do better than begin by citing the passage in question. It runs thus :—" Ils ont ni Code ni Digeste, ni aucun Livre où soient écrites les Loix auxquelles ils doivent se conformer pour terminer les differends qui naissent dans les familles. A la verité ils ont le *Vedam*, qu'ils regardent comme un Livre saint : Ce Livre est divisé en quatre parties, qu'on appelle Loix divines. Mais ce n'est point de là qu'ils tirent les maximes qui servent de regles à leurs jugemens. Ils ont un autre Livre qu'ils appellent *Vienachuram* : on y trouve quantité de belles sentences, et quelques regles pour les differentes Castes qui pourroient guider un Juge : on y raconte la maniere tout-à-fait ingénieuse dont quelques Anciens ont découvert la verité qu'on tâchoit d'obscurcir par divers artifices. Mais si les Indiens admirent l'esprit et la sagacité de ces Juges, ils ne songent point à suivre leur methode. Enfin, on trouve une infinité de Sentences admirables dans les Poètes anciens qui faisoient profession d'enseigner une sainte morale. Mais ce n'est point encore là qu'ils puisent les principes de leurs decisions.

"Toute l'équité de leurs jugemens est appuyée sur certaines coutumes inviolables parmi eux, et sur certains usages que les Peres transmettent à leurs enfans. Ils regardent ces usages comme des regles certaines et infallibles pour entretenir la paix des familles, et pour terminer les procez qui s'élevent, non seulement entre les particuliers, mais encore entre les Princes. De là qu'on a pu prévoir que sa pretention est fondée sur la coutume suivie dans les Castes, et sur l'usage du monde, c'en est assez, il n'y a plus à raisonner, c'est la regle, et l'on doit s'y conformer. Quand vous auriez des démonstrations que cette coutume est mal établie, et qu'elle est sujette à de grands inconvénients, vous ne

gagnerez rien, la coutume l'emportera toujours sur les meilleures raisons."

Here we have an unequivocal assertion that in 1714, during the long and uneventful reign of one of the last of the *Nāyakkans* of Madura, the only law known to the people was custom (*ācāra*); and family differences were settled, even between princes, without reference to the Vedas, to "*Vicnāchuram*" and the ancient poets, but in accordance with inviolable usages handed down from father to son.

The word '*Vicnachuram*' is puzzling. I thought, when I first saw it, it certainly must be a clerical error for *Vijñāneśvarīya*, which is synonymous with the *Mitāxarā* of *Vijñāneśvara*, and is by many supposed to be the "paramount authority" on matters of succession and inheritance over the greater part of India. Subsequently I was inclined to connect the word with *Vighneśa* (*Gaṇeśa*), the god appropriate to the *Śūdras*; but I have not been able to discover the existence of any such work. If the very extensive compilation styled the *Vijñāneśvarīya* is the work referred to, the writer's words need not be taken to imply that its chapter on *dāyavibhāga*, the only chapter used by the Anglo-Indian lawyer, was familiar (or even known) to the people at large; but, on the contrary, when compared with following passages, must necessarily be taken to imply that such chapter never was used, nor was any book, as an authority in determining causes, even between disputants of the blood royal.

One of the 'inconvenient' customs that perplexed Father Bouchet was that of permitting marriages between the children of a brother and sister, whilst the children of two brothers or of two sisters were looked upon as uterine brothers and sisters. It appears not to have occurred to him in connection with this matter, though (as we shall see hereafter) he was well aware of the fact, that in the primitive stage of society reached by the Indians, children are taught to regard their

father's brothers as elder and younger fathers, and their mother's sisters as elder and younger mothers; whilst the sister of their father, 'given' in marriage to another family, is simply a stranger to them. As a fact, the marriage of a boy to the daughter of his mother's brother is supposed to be held to be obligatory by most castes in South India.

A very natural and satisfactory explanation of the absence of written laws, indeed one so good that I cannot believe any Indian ever evolved it out of his inner consciousness—Father Bouchet surely must have invented it himself—is given in the following passage: "*Je leur ai quelquefois demandé pourquoi ils n'avoient pas ramassé ces coutumes dans des Livres que l'on pût consulter au besoin. Ils me répondoient que, si ces coutumes estoient écrites dans des Livres, il n'y auroit que des Sçavants qui pourroient les lire; au lieu qu'étant transmises de siecle en siecle par le canal de la tradition, tout le monde en est parfaitement instruit. Cependant, ajoûtent-ils, il ne s'agit ici que des Loix générales et des coutumes universales; car, pour ce qui est des coutumes particulieres, elles étoient écrites sur des lames de cuivre qu'on gardoit avec soin dans une grande tour à Canjibouram. Les Mores ayant presque entierement ruiné cette grande et fameuse ville, on n'a pû découvrir ce qu'estoient devenuës ces lames: on sçait seulement qu'elles contenoient ce qui regardoit en particulier chacune des Castes et l'ordre que les Castes differentes devoient observer entr'elles.*"

The idea of particular customs of castes being recorded on copper-plates kept at Conjeveram at the first blush must appear to be altogether mythic: but on consideration I am not altogether indisposed to admit the possibility of it being based partly on truth. Father Bouchet affirms that he himself was aware of a certain brass title-deed of a church having been fetched from Conjeveram, and of the fact that the Brahmans resident there still kept up the tradition of the

memory of ancient customs being preserved in that town. Hiouen Thsang has shown that in his time Conjeveram was the capital of the *Drāvida* (Tamil) country, so that there would be nothing strange in copper-plate grants and monuments in abundance being stored in its pagodas. And instances are not wanting of decisions of disputes about matters of caste being recorded on stone or copper. For example, in the *Madura Country*, at Part III, p. 171, it is mentioned that the *Nāyakkan* himself had decided a dispute between a caste of Tamil weavers and another caste as to which was entitled to precedence in receiving betel-nut at public entertainments; and I remember that the information was gotten from an inscription on stone found under a *Gopura*. Again, at Vol. IX, p. 270, *Bengal Asiatic Researches*, will be found an inscription commemorating the settlement by Bukha Rayer of a dispute between the *Bhaktās* and the Jains.

One is reminded of Macaulay's wonderful school-boy by the following observation: "Rien n'est plus connu que ces coûtures. J'ai vu des enfans de dix ou douze ans qui les sçavoient à merveille, et quand on exigeoit d'eux quelque chose qui y fut contraire, ils répondoient aussitôt, *Ajaratoucou Virodam*, cela est contre la coûture."

Father Bouchet goes on to describe the qualifications proper for a judge, and it is somewhat amusing to find that the first of them is the knowledge, possessed by "every school-boy," of all the maxims that serve for law. Next, the judge should be opulent. Lastly, he should be over twenty and under sixty years of age. His principal duty was held to be the patient examination of witnesses. Careful judges would write down the evidence and dismiss the witnesses, and recall and re-examine and cross-examine them after an interval of two or three days. The faces of deponents would be carefully watched for signs of shame, anger, fear and the

like. Women were to be examined as witnesses only in cases of absolute necessity. And persons suffering from deformity of body were taken to be unworthy of great credit. All this savours strongly of the *dharmaśāstra*, and I make no doubt that in giving information upon these points the worthy writer only reproduced conventional ideas communicated to him by Brahmans who “knew the Vedas.” He does not profess himself to have attended courts, and repeatedly to have derived satisfaction from the contemplation of careful judges, wealthy but honest, re-examining and cross-examining suspicious characters. On the contrary, he expressly states that judges were but little honest. And I am firmly persuaded that not only were no careful judges to be found in Father Bouchet’s day, in fact no courts of justice, nothing even remotely resembling one, existed in the Madura country.

The writer of the epistle states that every head of the village was judge of all causes arising within the limits of his village, and heard and determined causes, assisted by three or four experienced villagers selected by him as assessors. Most suits were for debt. Litigants pleaded in person or by a friend. Great order and decorum prevailed during the trial. After hearing the parties and their witnesses, the court dismissed them and took time to consider. And, if there was but little honesty in deciding, there was but little delay or expense. It appears, however, that whilst most suits were for debt, and obligations to pay money were customarily evidenced by writings duly dated, signed and attested by at least three witnesses, obstinate debtors usually were not proceeded against in the village court. The reason why this was so is not given by Father Bouchet, but will readily occur to the mind of an Indian judge. Doubtless it was because the head of the village had no power to enforce execution of his decree, and never was more than arbitrator or conciliator as between friendly disputants. Because the

head of the village could not effectually help him, the creditor who could not prevail on his debtor to come to a settlement was used himself to arrest the recalcitrant one, in the name of the Prince, and laying him under pain of being declared a rebel in case of his breaking the arrest. In such case the debtor stayed where he was till he could satisfy the claim, or until passers-by interfered in his behalf and induced the creditor to give him more time. Ordinarily the creditor would consent to wait for a few months longer; after which, if satisfaction was not obtained, he would hale the debtor before the prince, who, as a matter of course, would grant more time. Ultimately the defaulter would be sent to jail, and his oxen and furniture would be sold to pay the debt, part of which in almost all cases would be remitted. Whilst under arrest, the debtor's patient obedience was something remarkable: without the leave of his creditor he might neither eat nor drink.

There can be but little doubt, I imagine, that we have here a somewhat distorted account of a primitive mode of enforcing payment of debts, in its origin probably superstitious and magical, that must have obtained in most parts of the world before the State has thought it necessary regularly to interfere in the interests of justice between man and man. We find traces of this mode in Matthew xviii. The *Smṛiti* recognizes it. Marco Polo found it prevalent in South India, and himself saw the King arrested and coerced by a subject, who had contrived unperceived to draw the 'circle' round the royal body (see Yule's *Marco Polo*, II, 279). Doing *dharnā* is but a variety of the procedure. And even now, with the Police and Small Cause Courts at hand, the lower classes of Madras believe creditors to have power themselves to arrest and detain their debtors who may attempt to start on a journey.

A suitor dissatisfied with the judgment of the head of the

village was at liberty to appeal to the *Maṇiyakāran* or intendant of a group of villages. And a further appeal lay to the "immediate officers of the Prince who judge in the last resort," that is to say, I presume, to any powerful favorite who could be induced by a sufficient bribe to move in the matter. For, in the inscriptions and historic records of Madura, I have been unable to find any the slightest trace of the existence of a *Nyāyādhpati* or judge. And the *Mission du Maduré*, whilst it gives accounts of various disputes being brought up to nobles and courtiers for settlement, nowhere speaks of the existence of an established legal tribunal. The *Maṇiyakāran* took a fee for judging, and some judges of this class took as much as 10 per centum on the amount claimed. Ordinarily the successful party paid the costs, on the principle that he was in a better position than his opponent to meet the charge.

Speaking of loans, which occasioned the majority of the disputes brought before the judges, Father Bouchet observes that three rates of interest were commonly charged, namely, of 12, 24 and 48 per centum. The first of these three was known as the 'virtue' rate, and the last the 'sin,' the middle being regarded as indifferent. When the 'virtue' rate was agreed to, it was usual for the creditor to remit the interest due for the first month and for that of payment.

Altercations about matters of caste were disposed of by the heads of castes. The *gurus* (priests) decided disputes arising between their disciples. Family quarrels about money and other things were arranged by family councils. And in some instances disputants referred matters to arbitration. The *gurus*, it is incidentally remarked, took much larger fees than the *Maṇiyakārans*.

So much for the administration of civil justice: that of criminal was even less satisfactory. In cases of theft and the like the accused or suspected person was subjected to an

ordeal, generally that of boiling oil, into which the bare arm was plunged. Father Bouchet states that he had seen this ordeal undergone in numerous instances without consequent bodily injury. Another mode of discovering the truth was by making the prisoner take a ring out of a narrow-necked earthen pot containing a cobra. Before the ordeal began, opportunity was given to the wrong-doer of putting back unseen what he had improperly taken. With regard to these ordeals it is to be observed that they are of the kind usually called private, as opposed to the public, which required the performance of ceremonies by Brahmans, *e.g.*, the ordeals by fire, water, weighing, &c.

The crime of murder was very inadequately punished by a fine of 100 pagodas, or even of 100 crowns; and this, too, in cases where the victim was an officer of the Government. Fortunately this crime was of rare occurrence: and the frequency of its commission apparently had not been affected by the circumstance of Queen Mangammāl abolishing capital punishment, as for murder. The law permitted a husband to kill his wife and her paramour together when found *in flagrante delicto*; but not to kill one at one time and place, and the other at another.

A very remarkable practice is thus referred to: "S'il s'agit d'un meurtre, et que la Loy du Talion ait lieu dans la Caste, cette loy s'observe dans toute la rigueur." The practice is stated to have been usual only amongst the robber clans that lived between the *Marava* country and Madura, by which the writer must have meant the *Maravar* or *Kallar*. The nature of the "Loy du Talion" is not explained by the writer. But a letter in Recueil X, *Lettres cur. et éd.*, written by Father Martin in 1709, describes a practice prevailing amongst the *Maravar*, of one who considered himself aggrieved, killing or maiming himself (or his wife or child) in order that his enemy might be compelled to do the same.

to himself (or his). There can be no doubt that this horrible practice is connected with magic. How extensive it may be, how far modified forms of the superstition may still affect everyday life in South India, is a question of deep interest for criminal judges.

Brahmans, it appears, whatever their sins, never were put to death by violence. For grave offences their eyes were put out, or they were banished the realm. Occasionally one guilty of exceptionally bad conduct was starved to death in a cage lined with thorns.

Banishment, however, as enforced in Father Bouchet's time, was hardly a very terrible penalty to suffer. It consisted of quitting the city by one gate and forthwith re-entering it by another. In fact, this mode of punishment was purely nominal. And, indeed, looking to the language of this part of the epistle as a whole, I cannot doubt that at the beginning of the last century, in the old established thoroughly Indian kingdom of Madura, there was nothing in the shape of an organized administration of criminal justice; that in fact the King suffered ordinary criminals to go altogether harmless, and delivered over to his officers for punishment only those who had offended (or were supposed to have offended) directly against his own sovereign will and pleasure, and had aroused his royal wrath. I have already shown this in the *Madura Country* by citing several passages from letters of Jesuit missionaries. See, for example, one of Father Vico, dated Madura, 30th August 1611, which tells us that "toutes les autres terres sont les domaines d'une foule de petits princes ou seigneurs tributaires; ces derniers ont chacun dans leur domaine la pleine administration de la police et de la justice, *si toutefois justice il y a.*" The italics are mine. The following passage from a letter of Father Martinz, dated Sattiamangalam, 1651, describes in terse and forcible language the miserable state of anarchy that ordinarily prevailed

in the Madura kingdom, indeed in India generally, and is well worthy of the attention of those who love to praise the good old times and sneer at minor defects in the British administration of India.

“ La mort du Nayaker de Sattiamangalam et la minorité de son fils nous ont fait subir les funestes conséquences du mauvais gouvernement qui existe en général dans l’Inde. L’idée d’un monarque qui regarde son peuple comme une immense famille dont il est le père n’est jamais entrée dans l’esprit ni dans le cœur des rois indiens ; ils se regardent plutôt comme de grands propriétaires, et leur royaume comme une vaste ferme à exploiter. Pleins d’énergie, de sagacité pour extorquer de leurs sujets le plus d’argent qu’il leur est possible, ils sont aveugles, négligents et faibles à l’excès dans tout ce qui regarde le bon ordre, la répression des crimes et des injustices. Tous ces soins sont abandonnés à des subalternes, aux chefs de castes et aux gouverneurs des provinces et des villages ; ceux-ci sont eux-mêmes comme autant de petits despotes ; habiles à se rendre indépendants ou à justifier leur arbitraire par des intrigues et des présents offerts à la cupidité de ceux qui devraient les surveiller.”

After giving his general description of the administration of justice in South India, Father Bouchet goes on to detail the traditional maxims that “ every school-boy ” knew by heart. But seven are given. And since it is impossible to believe that any people, however rude and backward, could have determined all its disputes by reference to these seven brief maxims, we must suppose that those set out in the epistle are specimens. Again, since the form of the maxims

not native but purely European, we must suppose that they were composed by Father Bouchet himself to represent conveniently what he (rightly or wrongly) conceived to be the main jural or ethic concepts held in solution, as it were, in the common talk of the people amongst whom he sojourned.

The 1st maxim is: “ Quand il y a plusieurs enfans dans une maison, les enfans mâles sont les seuls héritiers ; les filles ne peuvent rien prétendre à l’héritage.” Upon this Father Bouchet observes that, when asked why this injustice was done to girls, natives would say that “ the nation had agreed to this,” and there was no injustice in the custom, because fathers and mothers and brothers were bound to get their girls married and transferred to families of equal position and dignity with their own. And if it were replied to this that the parents got the money given by the husband as the price of his bride, the rejoinder would be that the whole of it went to defray the expenses of the marriage and buy jewels for the bride. As to this, the remark occurs at once that of course no native ever suggested that the nation had agreed to do anything, and that the author of the epistle must have recorded not the very good words, but what he remembered of the substance of the statements, of his informants. The real reason why ordinarily the daughter of an Indian house takes no share of the joint family estate is that on marriage she is given away to and becomes part of another ‘ house,’ and thenceforth looks to that house for protection and adequate maintenance ; whilst the daughters of other houses are given to and become part of the house in which she was born, and take her place. The system is intelligible and reasonable, and need not have disturbed Father Bouchet’s mind.

The general rule was subject to the following exception :—
“ Cependant il y a de petits Royaumes dans les Indes, où les Princesses ont de grands privileges, qui les mettent au dessus de leurs freres, parce que le droit de succeder ne vient que du costé de la mere. Si le Roi, par exemple, a une fille d’une femme qui soit de son sang, quoi qu’il ait un enfant mâle d’une autre femme de même Caste, ce sera la Princesse qui succedera et à qui appartiendra l’heritage. Elle peut se

marier à qui elle voudra, et quand son mari ne seroit pas du Sang Royal, ses enfans seront toujours Rois, parce qu'ils sont du sang Royal du costé maternel, le pere n'étant compté pour rien, et le droit, comme je l'ai déjà dit, venant uniquement du costé de la mere."

We have here an interesting account of a custom analogous to customs of the Western Coast, and it would be well to know what particular castes are referred to. The primitive idea of succession coming from the mother alone seems to have been widely prevalent in India, and its influence has not yet disappeared.

The 2nd maxim is of great practical importance :—"Ce n'est pas toujours le fils aîné des Rois et des Princes, des Palleacarrens, et des Chefs de Bourgade qui doit succeder aux Etats ou au gouvernement de son pere." The letter explains that there were two sorts of dignities in South India, (1) such as passed as of course from father to son, and (2) such as were personal to the holder, and did not necessarily descend to his successors. In the case of the demise of the King, it was the custom for the eldest prince to succeed if capable, but not otherwise. Where the eldest was incompetent, the King would himself appoint a younger son to be his successor ; or if the King failed to perform this act, his relatives would come together after his death and elect a younger son. Such was the established custom, and in no instance would the superseded prince decline to submit. An instance of the eldest son being set aside in favour of a younger will be found at p. 247, Part III of the *Madura Country*, where an account is given of Raghunātha being appointed to succeed to the throne of the Ramnad country in preference to his elder brother Vaduganātha, who probably was disliked because he showed favour to the Jesuits. And the custom is not necessarily opposed to the text of Manu (IX, 323), which has been

assumed to prescribe the succession of the eldest son, for, if the eldest son always succeeded as a matter of course, there would seem to be no occasion for the dying King “duly to commit his kingdom” to him.

Poligars and heads of villages, Father Bouchet tells us, invariably preferred their younger to their elder sons, if more competent.

And then the letter goes on to give a remarkable instance of a partition of a kingdom:—

“On a vû avec admiration les deux freres Princes de Tanjaor gouverner tous deux ensemble le pays qui leur a esté laissé par leur frere aîné qui n’avait pas d’enfants. Il est vrai que l’expérience leur ayant appris que cette autorité commune embarrassoit leurs sujets, ils ont partagé entre eux le Royaume de *Tanjaor*, mais ils ne laissent pas de demeurer ensemble dans le même Palais, et d’y vivre dans une parfaite union. Ils sont les enfans d’un frere du fameux Sivagi.”

This passage should afford food for reflection to those who, following the unsupported opinions of the two Stranges and others, and rejecting the sound arguments of Jagannātha, maintain that, according to Hindu law and usage, the *Rājyam* cannot be divided, “because division would destroy it.” I have examined this proposition in Chapter II of my *View of the Hindoo Law*.

The 3rd maxim is: “Quand les biens n’ont point esté partagez après la mort du Pere, tout le bien que peut avoir gagné un des enfans, doit estre mis à la masse commune, et estre partagé également.” Father Bouchet observes that this is generally followed amongst Indians, and an infinite number of disputes are settled in accordance with the principle involved in it. If, for example, a man dies leaving five sons and an estate of the value of 100 pagodas, and one of these sons by his own unaided exertions acquires 10,000 pagodas, he

must throw them into the common fund for equal partition ; and should he refuse to perform his duty in this behalf, his relatives and friends will compel him to follow the custom. No exception to the rule is spoken of. And apparently Father Bouchet had never heard of successful attempts having been made to withhold from partition “ acquisitions by science,” gifts and the like : doubtless the subtle conceits of the Sanskrit law had not yet been imported into the countries with which he was familiar.

A curious practice is said to have been followed where partition took place in a family of brothers of whom some were supposed to be clever, some stupid. The stupid brother got a considerably larger share for himself than did the others, on the principle that he was not likely to increase his means by his own personal exertions, whereas his brothers might be supposed to be able to add to their capital.

Public opinion, as may well be imagined, was decidedly in favour of families keeping together, and in some families division was an unheard of occurrence.

“ Il y a de certaines familles où l'on ne parle jamais de partage : les biens sont communs, et ils vivent dans une parfaite intelligence. Cela arrive lorsque quelqu' un de la famille est assez habille pour la faire subsister. C'est lui qui fait toute la dépense : il est comme le supérieur des autres qui n'ont d'autre soin que de travailler sous ses ordres : il marie les fils et les petits fils de ses freres, il pourvoit à leurs besoins, aux vêtements, à la nourriture, &c. Ce qu'il y a d'admirable, c'est qu'il se trouve quelquefois des femmes capables de gouverner ainsi plusieurs familles. J'en ai vû une qui est chargée de plus de quatrevingt personnes qu'elle entretenoit des choses necessaires à la vie.”

In this happy picture one may perhaps recognize the ‘house’ of Cicero (Offic. I, 1, 17): “*Prima societas in ipso conjugio est ; proxima in liberis, deinde una domus ; communia*

omnia.” But the Indian is not the Patriarchal Family of Maine (*Village Communities*, 15): “a group of men and women, children and slaves, of animate and inanimate property, all connected together by subjection to the Paternal Power of the chief of the household.” In Rome there was law, and consequently the “Paternal Power” was a real thing: in India, in Father Bouchet’s time, law was unknown, and the only power resident in the manager of a family was what he derived from the fears and hopes of those whom he fed, clothed and supported in complete idleness. That power, I imagine, wanes daily under the influence of our courts and legal enactments, and possibly in the course of a few generations the ancient institution of the Indian “undivided family” will utterly perish. It has had its uses, doubtless has done good of a kind; but it is incompatible with what is called progress, and with the modern impatience of authority.

The 4th maxim is: “Les enfans adoptifs entrent également dans le partage des biens avec les enfans des peres et meres qui les ont adoptez.” Often a childless man adopted one of his relatives. The act was done in the following manner. An assembly of relatives was held in his house, and a large copper dish was brought in, in which to place the child’s legs, or (if he could) make him stand up. Then the husband and wife stood up and spoke as thus: “We hereby inform you that, having no child, we wish to adopt this one. We choose him for our child in this wise, that our goods shall belong to him henceforth as if he were actually born of us. He has now nothing to hope for from his own father. In token whereof we are about to drink saffron water, if you consent.” Those present consented by a movement of the head. Then the husband and wife stooped down, and poured saffron water over the legs of the child, and what was left in the vase they drank. A deed styled a “*Manchinircani chitou*” was drawn up, to evidence the act, and signed by witnesses, and the act

was complete. It is observable that in this description of the ceremony of adoption not a word is said about spiritual benefit, or deliverance from the "Hell called Put," or as to ceremonies performed by attendant Brahmans. So far as appears, the act was done solely for temporal purposes, and the consent of kinsmen was necessary because their interests were (or might be) affected by it.

If the adoptive father and mother subsequently had children born to them, the natural children would be subordinate to the adopted one, since "les loix ne mettent nulle difference entre l'enfant adopté et les veritables enfans." That is not the case under the British Government.

Another kind of adoption, that known as the "*oppari pirieradou*," was practised by parents who, having lost a child, happened to find another which in their eyes exactly resembled the lost one. In such case they would pray the child to regard them as his parents, and the prayer always was granted. It was allowable for a *Sūdra* to adopt a Brahman in this fashion, and a Brahman so adopted would pay great respect to his adoptive father, though he might not eat with him. A man who lost a brother, or a woman who lost a sister, often would adopt a person as brother or sister by '*oppari*.' This adoption was determined by the death of the adoptor, and its effects did not pass to his children.

The 5th maxim is: "Les orphelins doivent estre traittez comme les enfans de ceux à qui on les confie." It is explained that a father's brothers were considered by law to be the fathers of his children, and a mother's sisters to be her children's mothers; and hence an Indian widower always does his best to marry his deceased wife's sister, in order that his children may have a proper mother to look after them. Possibly it was this feeling that often led an Indian in Rogerius' day (see *La Porte ouverte*, Amsterdam translation, 1670) to marry two or three sisters at a time: by so doing

he might hope to free himself from all anxiety about the future of his expected children.

Where an orphan was left without either elder brother, uncle, or aunt, a family council was held and a guardian elected. To him the orphan was given over, and a list was taken of the orphan's effects, which must be restored to him upon his attaining his majority. As soon as he was able, the orphan was made to work. And, if intelligent, he would be taught to read and write and cipher.

The 6th maxim is: " *Quelque crime qu'ayent commis les enfans à l'égard de leurs peres, ils ne peuvent jamais estre desheritez.*" Even if a son attempted the life of his father, his sin must be forgiven: he could not be disinherited. And similarly a son could not disinherit his father, who (in default of sons) was his natural heir. For no cause could the father be deprived of this indefeasible right.

With regard to this maxim I would observe that the worthy Father Bouchet would appear to have got a little out of his depth here. Where inheritance is unknown, of course disinheritance is impossible, and therefore it is not incorrect to say that an Indian father may not in any case disinherit his son. But a father may separate his son from him, and not infrequently does so, and such separation practically may amount to disinheritance. And the idea of the father being heir to his son would seem to be quite opposed to the idea above presented, of the son being obliged to throw all his earnings into the common mass.

We now come to the 7th, unfortunately the last, maxim: " *Le pere est obligé de payer toutes les dettes que les enfans ont contractées; et les enfans sont pareillement obligez de payer tous les dettes de leur pere.*" This rule, Father Bouchet observes, is general, and serves definitively to settle disputes. However profligate the son, the father must pay his debts, and the duty of the son is reciprocal. " *Quand*

même on prouveroit que le pere a employé d'argent emprunté en des depenses folles et indignes d'un honneste homme, quand même le fils renonceroit à l'heritage, il sera toujours condamné à payer les dettes de son pere." The same principle was observed amongst undivided brothers, living together under the management of the eldest. The manager of such a family was obliged to discharge the debts incurred by a spendthrift member, who would nevertheless continue to share the family estate equally with the others ; the reason being that the eldest brother was supposed to have become the father, and the others were used to throw themselves at his feet in return for his protection. But the rule did not apply to females.

This very remarkable and important maxim is directly opposed to the Hindu law as administered by the Madras High Court, but probably accurately represents the Indian idea of duty as between father and son. The *Thessa Waleme*, or book of the customs of the Tamils of Ceylon, tells us that in that island, where the English have not thought fit to interfere with the customs of the natives, "Although the parents do not leave anything, the sons are nevertheless bound to pay the debts contracted by their parents ; and although the sons have not at the time the means of paying such debts, they nevertheless remain at all times accountable for the same ; which usage is a hard measure, though according to the laws of the country." Possibly it tends to restrain profligate fathers of families, who, according to the Sanskrit proverb, are the "enemies of their sons."

J. H. NELSON.

II.

THE PREDECESSORS OF THE HIGH COURT
OF MADRAS.

CHAPTER I.

A HIGH COURT of Judicature, which under various names and with several modifications has continued in existence down to the present time, was established at Madras in 1678, or we may say A.U.C. 38 or 39, the grant from the Rajah of Chandragiri of the strip of territory on which Fort St. George was built being dated 1st March 1639. Before the last mentioned date "the Governor and Company of Merchants of London trading to the East Indies" had obtained from the Crown, in addition to their Charter of incorporation dated the 31st December 1600 (43rd Elizabeth) and a Charter dated 31st May 1609 (7th James I), by which their privileges were confirmed and extended—a Charter dated 4th February 1622 (20th James I), which empowered the Company to chastise and correct all English persons residing in the East Indies and committing any misdemeanour either with martial law or otherwise, but this Charter appears not to have been of much value, for nearly thirty years afterwards we find the Company complaining in a petition presented to the Council of State on the 22nd October 1651 of having been for years without proper authority in the Presidencies in India to enforce obedience in the English subjects within their limits, and praying that powers might be given under the Great Seal of England to their Presidents and Councils in India to enforce obedience in all Englishmen resident

within their jurisdiction and to punish offenders conformably to the laws of England.¹

In 1653 Fort St. George, which had up to this time been governed by an Agent and Council who were subordinate to the President and Council of Bantam, was raised to the rank of a presidency,² and in 1657 the Company obtained a Charter from Cromwell,³ but this Charter was probably destroyed at the Restoration, and all record of it appears to have been carefully suppressed.

The next Charter, that of the 13th Charles II (3rd April 1661), provided that all plantations, forts, fortifications, factories or colonies, where the Company's factories and trade were or should be in the East Indies, should be under the power and command of the Company, who should have liberty, full power and authority to appoint and establish Governors and all other officers to govern them : and that the Governor and his Council of the several and respective places where the Company had or should have any factories or places of trade within the East Indies might have power to judge all persons belonging to the Company, or that should live under them, in all causes whether civil or criminal according to the laws of the Kingdom, and to execute judgment accordingly ; and in case any crime or misdemeanour should be committed in any of the Company's factories in the East Indies where judicature could not be executed as aforesaid for want of a Governor and Council there, then it should be lawful for the chief Factor of that place and his Council to transmit the party together with the offence to such other plantation, factory or fort where there was a Governor and Council where justice might be executed, or into the Kingdom of

¹ Bruce's Annals of the East India Company, vol. i, p. 459.

² Bruce's Annals, vol. i, p. 484.

³ *Ibid*, p. 529.

England as should be thought most convenient, there to receive such punishment as the justice of his offence should deserve.

Nothing however appears to have been done with a view of carrying these provisions into effect in Madras till March 1678, up to which time the arrangements for the administration of justice there appear from the Rules and Regulations made by the Governor (Mr. Streynsham Master) and Council on the 31st January 1678⁴ to have been as follows :—

It was the duty of the Customer, or fourth in Council, Mint Master, and Pay Master, or any two of them, to sit every Tuesday and Friday in the Choultry to do the common justice of the Town ; and to take care that the scrivener of the Choultry duly registered all sentences in Portuguese, and that there should be an exact register kept of all alienations or sales of slaves, houses, gardens, boats, ships, &c. ; the Company's due for the same to be received by the Customer, and the Bills or Certificates for such sales to be signed by the persons in the offices aforesaid or any two of them.

The Purser General or Pay Master had also to take charge of the concerns of deceased men, and to keep a book for registering Wills and Testaments and Inventories of deceased persons, the moneys so received to be paid into the Company's cash ; and in the same book to keep a Register of births, christenings, marriages and burials of all English men and women within the Town.

The Justices of the Choultry appear also to have acted as Coroners, for we find that during the governorship of Mr. Master's predecessor, Sir William Langhorne, notice having been brought to him by Lieutenant James Bett of the death of a soldier of the garrison under a punishment inflicted on him by a Serjeant and Corporal, the Governor ordered Lieutenant

⁴ Wheeler's Madras in the Olden Time, vol. iii, p. 431.

Bett to go to Timothy Wilkes, one of the Justices of the Town, to desire him to send some sufficient gentlemen of the English nation to go along with him, the said Wilkes, and then to make enquiry how the death happened before the burial, which accordingly was immediately performed. The Serjeant and Corporal after a long imprisonment were sent to England for trial during the government of Mr. Streynsham Master.⁵

On the 18th March 1678, by which time the inhabitants of Madras had greatly increased, and many complaints had been made of the want of an administration of justice in cases which could not be decided by the Justices of the Choultry, the Agent and Council resolved that under the Royal Charter of 13th Charles II they had power to judge all persons living under them in all cases whether criminal or civil according to the English laws, and to execute judgment accordingly; and it was determined that the Governor and Council should sit in the Chapel in the Fort on every Wednesday and Saturday to hear and judge all causes; and that the Justices of the Choultry and Constables under them should execute all orders of the Court such as writs, summonses for jurymen, executions after judgment, and apprehensions of criminals. This High Court of Judicature was not however intended to supersede the Court of the Justices of the Choultry. All small misdemeanours, breaches of the peace, and actions for debt not exceeding 50 pagodas, were still to be decided by these Justices.⁶

By a subsequent Charter dated 9th August 1683 (35th Charles II) His Majesty granted to the Company the ordering, rule and government of all forts, factories and plantations settled by or under the Company within the parts of Asia, Africa and America beyond the Cape of Bona Esperanza to

⁵ Wheeler's Madras, vol. i, p. 106.

⁶ *Ibid.*, p. 104.

the Straights of Magellan ; and also full power to make and declare peace and war with the Heathen Nations in the said Territories, and to appoint Governors and Officers who should have authority to raise Military forces and to execute and use Martial Law for the defence of the said forts, places and plantations, the sovereign right, powers and dominion over all the said forts, places and plantations, and power of making peace and war, when His Majesty should be pleased to interpose his royal authority therein, being always reserved ; And for the more effectual encouragement of the said Company and the Merchants that should from thenceforth trade with the parts and places aforesaid, and to the end that more effectual remedies might be applied in the case of former or such other disorders or inconveniences as might happen, His Majesty did erect and establish a Court of Judicature to be held at such place or places, fort or forts, plantations or factories, upon the said coasts, as the Company should from time to time direct and appoint, which Court should consist of— One person learned in the civil laws, and two merchants, which said persons, and such officers of the said Court as should be thought necessary to be nominated and appointed from time to time by the Governor or Deputy Governor and Court or the major part of them ; and which said person learned in the civil laws and two merchants, or the major part of them, whereof the said person learned in the civil law to be one, should have commission and power to hear and determine in all cases of forfeitures and seizures of any ship or ships, goods and merchandize, trading and coming upon any the said coasts or limits, contrary to the intent of the letters patent granted to the Company ; and also all causes mercantile or maritime, bargains, buyings, sellings, bartering of wares whatsoever, and all policies and acts of assurance ; all bills, bonds and promises for payment of money, or mercantile or trading contracts, all Charter parties or trading contracts for

affreighting of vessels, and wages of mariners, and all other mercantile or maritime cases whatsoever, concerning any person or persons residing, coming or being in the places aforesaid; and all cases of trespasses, injuries and wrongs done or committed upon the high sea, or in any of the regions, territories, countries or places aforesaid, concerning any person or persons residing, being or coming in the parts of Asia, Africa and America within the bounds and limits aforesaid; all which cases should be determined and adjudged by the said Court upon due examination and proof according to the rules of equity and good conscience, and according to the laws and customs of Merchants, by such methods and rules of proceedings as His Majesty should from time to time direct and appoint: And for want of such directions, and until such directions should be made, by such ways and means as by the Judges of the said Court should in their best judgment and discretions think meet and just, whether it should be by a summary way or otherwise, according to the exigency of several cases that should be brought in judgment before them: And all judgments, determinations and decrees made in the said Courts were to be put in writing, and signified to the persons that were present at the making of the same, and should contain a short state of the matter of fact as it appeared to them, and their sentence and adjudication thereupon.

A copy of this Charter was sent out to Madras by the Court of Directors with their general letter dated 14th August 1683, in which they appointed their President to supply the place of Judge Advocate till one should arrive. This, in the words of the Minutes of Consultation of the 10th July 1684, "occasioned the silencing our former Court of Judicature, and has given great dissatisfaction, to the creating many disturbances and complaints for justice, to the discredit and disgust of our Government; and though

the Honorable Company have appointed their President to supply the place of Judge Advocate till he shall arrive, yet having no directions for those proceedings, and being unacquainted with the methods thereof, it is thought and agreed to be of absolute necessity to the peace, justice, security and honor of the Government, that the old Court of Judicature be organised, and that causes be heard and decided there by jurors as formerly, by the authority of the first Charter, till the Judge Advocate shall arrive or we prohibit further proceedings therein.”⁷

At Bombay a Court of Admiralty was at once established under the presidency of Dr. John St. John, who was appointed Judge of the Court by a Commission from the King dated the 6th February, and from the Company dated 7th April 1684. This gentleman however soon became involved in disputes with the Governor, Sir John Child, who limited his jurisdiction to maritime cases, and appointed Mr. Vaux to be Judge in Civil Actions.⁸

In 1686 the Company obtained another Charter from the Crown, bearing date the 12th day of April in the second year of the reign of James II. It differs chiefly from the Charter of 35th Charles II in authorizing the Company to appoint Admirals and other Sea Officers, and to coin any species of money usually coined in India; and in adding to the cases over which the Court was to have jurisdiction, cases of reprisals of ships or goods for any hurt or damage done to the Company by any person or persons whatsoever.

This time no delay took place in sending out a Judge to Madras. The fourth paragraph of the Court of Directors’ despatch dated 7th January 1687 is as follows :—

“ We send by this ship, the ‘Williamson,’ Sir John Biggs to be our Judge Advocate, in whose fidelity and zeal for our ser-

⁷ Wheeler’s Madras, vol. i, p. 137.

⁸ Bruce’s Annals, vol. ii, pp. 479, 565.

vice, and for the increase of our revenue in that great city of Madras, we have much confidence ; and therefore for his greater honour we appoint him to be of our Council, notwithstanding he is not named in our last commission, and to take place next after our second of the Council for the time being ; desiring you to give him such a publique reception as be fit to his quality and the trust we have reposed in him."

In the same year the Company determined to assume the rank of an Indian power, and as such to negotiate and act for the interests of England. Bombay was declared a Regency and the same plan was followed at Fort St. George. The King's Union Flag was ordered to be always used at the Fort, the fortifications were to be extended and strengthened, and the garrison increased ; and, that the internal administration of the town might correspond with its new character of a Regency, it was erected into a Corporation by a Charter under the Company's larger seal, bearing date the 30th day of December 1687 (3rd James II). The question had been agitated in the Privy Council whether such Charter should proceed from the King, under the Great Seal of England, or from the Company, under its Broad Seal, from being vested with a right to exercise a delegated sovereignty in India, and the conclusion arrived at is thus described in the Court's letter to President Yale of the 12th December 1687 :—

"The Governor and Deputy were commanded last night, being Sunday, to attend His Majestie at the Cabinet Council, when our intended Charter for incorporating Fort St. George into a body politique, consisting of Mayor, Aldermen and Burgesses, was largely debated before His Majestie ;—One of the Council (being a lawyer)⁹ seemed to be of opinion that it was

⁹ Probably Sir Thomas Powis, who about this time succeeded Sir Robert Sawyer as Attorney-General, Sir William Williams being appointed Solicitor-General in succession to Powis. Macaulay's History of England, vol. iii, p. 77.

best the Charter should pass immediately by the King under the Great Seal of England:—His Majestie asked the Governor his opinion, who replied that what His Majesty thought best the Company would always think so, but, if His Majestie expected the Governor's private opinion, he had ever been of opinion that no person in India should be employed by immediate commission from His Majestie, because, if they were, they would be prejudicial to our service by their arrogancy and prejudicial to themselves, because the wind of extraordinary honour in their heads would probably make them so haughty and overbearing that we should be forced to remove them; and he instanced particularly Sir John Wyborne and Dr. John St. John:—In conclusion His Majestie, did so apprehend it as to think it best that the Charter should go under our own seale, because the Corporation must be always in some measure subject to the control of our President and Council; and so at length it was agreed and the Charter is now engrossing.”¹⁰

The lawyer was probably thinking of Sutton's case¹¹ relating to the foundation of the Charter-house in London, where it was, perhaps rather too broadly, laid down that the King by virtue of his prerogative is the only person that can erect either an ecclesiastical or lay Corporation. Sutton's case itself established an exception to the rule, and there are many instances in which Charters of incorporation, and even Charters of municipal incorporation, have been granted by subjects having *jura regalia*. Corporations have also, at various early periods of our history, exercised the right of constituting other Corporations.¹²

Be that as it may however, the Charter of 30th December 1687 can hardly be considered an attempt to encroach upon

¹⁰ Bruce's Annals, vol. ii, pp. 585, 588, 590.

¹¹ 10 Coke's Reports, 33b. See also Bacon's Abridgment, Corporation, B; and Comyn's Digest, Franchise, F. 5, where it is said that the King by Charter to the East India Company may enable them to constitute such persons who shall be incorporated.

¹² Grant's Law of Corporations, p. 11.

the Royal Prerogative. Not only had His Majesty sanctioned its going under the Company's seal as above mentioned, but the power to administer assertory oaths to witnesses and other lawful oaths is stated to be granted "with the consent and approbation of our Sovereign Lord the King testified by his most Excellent Majesty prefixing his Royal sign manual to this Charter."

This Charter, which is not in any of the printed collections,¹³ commences by reciting that under the Charter of 13th Charles II the Company had power to make reasonable laws, constitutions, orders and ordinances for the good government of the said Company and their Officers; that the ordering rule and government of all their forts, factories and plantations was vested in them by the Charter of 35th Charles II; and that by the Charter 2nd James II all their former privileges were confirmed, with license to exercise Martial Law; and then goes on as follows:—

"Now We, the said Governor and Company having found by experience, and the practice of other European nations in India, that the making and establishing of Corporations in cities and towns that are grown exceeding populous tends more to the well governing of such populous places, and to the increase of trade, than the constant use of the law martial in trivial concerns; We have therefore by and with the approbation of our Sovereign Lord the King that now is, declared in his Majesty's Cabinet Council the 11th day of this instant December, and for the speedier determination of small controversies of little moment frequently happening among the unarmed inhabitants, thought it convenient to make, ordain and constitute our town of Fort St. George, commonly called the Christian town and City of Madrassapatam, upon the coast of Choromandel in the East Indies, and all the territories thereunto belonging, not exceeding

¹³ The Madras Government ordered it to be printed in April 1878, but I believe the order has not yet been acted upon.

the distance of ten miles from Fort St. George, to be a Corporation under us, by the name and title of the Mayor, Aldermen and Burgesses of the town of Fort St. George and City of Madrassapatam : And therefore we the said Governor and Company do by these presents ordain, constitute and appoint that the inhabitants of Fort St. George and Madrassapatam aforesaid, or so many of them as shall be hereby nominated, or that shall hereafter be thereunto elected or admitted in manner and form hereinafter prescribed, shall be one Body Corporate and politick, in deed and in name, by the name of the Mayor, Aldermen and Burgesses of the Town of Fort St. George and City of Madrassapatam, really and fully for ever."

The Corporation was to have perpetual succession and a Common Seal, and to be capable of holding and disposing of lands, tenements and hereditaments. One of the inhabitants was to be elected and appointed Mayor, and there were to be twelve Aldermen, and sixty or more, not exceeding one hundred and twenty, Burgesses. Mr. Higginson, then Second of the Council and afterwards Governor of Fort St. George, was appointed the first and modern Mayor of the Corporation, and to take upon him and continue in the said Office for one whole year from the 29th September 1688, if he should so long live, and so until a new Mayor should be chosen by the Aldermen and Burgesses. Three other members of Council, one French Merchant, two Portugal Merchants, three Hebrew Merchants and three Gentue Merchants, were appointed the twelve first and modern Aldermen ; and John Nicks, John Stables, and twenty-eight others, described only as Merchants, but who appear from their names to have all been Englishmen, were appointed Burgesses. One of the Aldermen was to be elected Mayor on the 29th September in every year ; and it was directed that the Corporation should consist of a mixture of the most discreet, best and honestest of all sorts of people residing within the limits of the Corporation, and that the Court of

Aldermen especially should be made up of the heads and chiefs of all the respective casts.

“And further for us and our successors We grant, ordain, constitute and appoint that the Mayor and Aldermen so elected, nominated and sworn as aforesaid shall be then and for ever hereafter a Court of Record within our Town of Fort St. George and City of Madrassapatam and the precincts thereof aforesaid. And that the Mayor of the said Corporation for the time being shall be always one of the Justices of the Peace within the precincts of the said Corporation and without the Walls of our said Fort commonly called Fort St. George. And that three of the first named or the eldest three Aldermen that shall hereafter be, shall always likewise be, by virtue of this our Grant and Charter Justices of the Peace, and as Justices of the Peace according to equity and good conscience and to such laws and constitutions as have been or shall hereafter be made by our General and Council, or in our General's absence by our President and Council of Fort St. George, have and exercise the jurisdiction and authority of Justices of the Peace within the bounds, limits and precincts of the said Corporation but without the Walls of Fort St. George aforesaid.”

The Corporation was authorized to levy taxes for the building of a convenient Town House, a Guild Hall, a public Gaol, and a School House for teaching of the Gentues or Natives' children to speak, read and write the English tongue, and to understand Arithmetic and Merchants' Accompts; and for the payment of the salaries of the necessary Officers and School-master.

The Mayor and Aldermen as a Court of Record were to have power and authority to try and adjudge all causes whatever, criminal and civil, between party and party, whoever they might be, that should be brought before them in a summary way according to equity and good conscience and according to such laws, orders and constitutions as the Company had already made or should thereafter make and

constitute for the good government of the inhabitants of Fort St. George and Madras. Their judgment was to be final in all causes civil wherein the value of the damages adjudged for the defendant to pay should not exceed three pagodas, but in case of a larger amount an appeal was given to the Supreme Court of Judicature, commonly called the Court of Admiralty, whose judgment was to be final in all such cases. In criminal cases upon which sentence should be awarded for the taking away the life or limb of any offender, the offender or prisoner so sentenced might appeal to the Supreme Court, whose sentence in such case should be final, and execution accordingly awarded and done within three days, except the General and Council, or General of India, or President and Council of Fort St. George, for the time being, should by reprieve order execution to be respited, or pardon the offender.

“And our further mind and will is, and we do hereby grant and ordain, that the said Mayor and Aldermen may elect and nominate from time to time one discreet person, skilful in the laws and constitutions made by us or hereafter to be made by us for the good government of our Town of Fort St. George and City of Madrassapatam and all the inhabitants thereof, to be Recorder of the said Corporation, who is always to be an Englishman born and our Covenant Servant at the time and during all the time of his being Recorder of the said Corporation, and is to have place and session next after the Mayor for the time being, and to be assistant to the Mayor in trying, judging and sentencing all causes of any considerable value or intricacy, when he can be present from other more weighty affairs.”

* * * * * “And we do hereby concede and appoint, that Sir John Biggs, Knight, Judge of our Supreme Court of Judicature aforesaid, shall be the first and modern Recorder of the Corporation aforesaid, and shall and hath hereby power to do and execute all things that belong to the duty of Recorder.

“And we do further give and grant that the said Mayor and Aldermen at their discretion, or the major part of them, may

choose and elect one able and discreet person to be their Town Clerk and Clerk of the Peace, who is always to be an Englishman born, but well skilled in the languages of East India, and is to be assistant to the Mayor and Aldermen in all such businesses and employments as they shall require of him, and is to keep all records of the said Court that shall be committed to him by the said Mayor and Aldermen, and to keep a Register of all proceedings, judgments and sentences passed by the said Court, and to have and receive for his pains and care in that business such salary and such moderate fees (and no others) as the Court of Aldermen shall appoint: And we do hereby declare that the person so elected for that important employment shall be always esteemed a Notary Public, and is hereby qualified to do any act or thing or make any Testimonials that are proper and do appertain to the duty of a Notary Public, unto which acts and Testimonials the Mayor of the said Corporation for the time being may affix the Public Seal of the said Corporation, for which the said Mayor or whoever he shall appoint may receive and demand the Duty of six fanams for every time the Public Seal of the Corporation shall be affixed to any Testimonial."

On Thursday, the 13th September 1688, "the President and Council met at the Fort Hall to advise about the establishing of the Corporation, where were present all, the Mayor, Recorder, Aldermen and Burgesses in town; when it was agreed to meet in their gowns and ornaments at the Town Hall on the 29th instant, the Aldermen in scarlet serge gowns, and the Burgesses in white China silk, to consult about the choosing whom they shall think fit to make up the number of Aldermen appointed by the Charter: and on Saturday, the 29th September, according to this day's appointment the President, Mayor, Recorder, Aldermen, Burgesses and chief of the inhabitants met at the Fort Hall, before whom the Right Honorable Company's Charter was publicly read by the Secretary. After which the President administered oaths to the Mayor and Recorder for the due performance of their places; and then the Mayor and

Recorder did the like to the Aldermen and Burgesses in their several manner and forms. A while after they went to dinner, and about three in the evening the whole Corporation marched in their several robes with the Maces before the Mayor to the Town Hall.¹⁴

“On Monday the 29th October, it having been found that the Mayor, Mr. Nathaniel Higginson, could not attend the Court so often as might be requisite, in consequence of so much of his time being taken up by his having the care and charge of the general Books of Accompts and the Mint upon him, it was ‘agreed and ordered that the Mayor’s Court be held once a fortnight, and that any two of the three English Aldermen Justices, or what other Aldermen are willing to go to the Choultry as formerly twice a week, to hear, punish and determine all small offences and complaints to the amount of two pagodas fine or award; all greater to be deferred to the Mayor’s Court to be examined and determined there.’”¹⁵

The following extracts from the Minutes of Consultation show the mode of procedure under the new Charter :—

“Wednesday, 18th December 1689.—There being a black fellow and slave named Fransico, alias Chow, condemned to death in the Mayor’s Court for theft, who appealing to the President and Council, and there appearing no evidence against him at trial, more than his own confession under punishment before his trial, at which time he pleaded not guilty; notwithstanding which the Jury brought him in Guilty only upon his former confession; which being a hard case, and this offence too common amongst our slaves, and usually punished with a corporal punishment and banishment; it is therefore agreed and ordered that the said Chow be pardoned the sentence of death; and that he be stigmatized on the shoulder with the Honorable Company’s mark with a hot iron, and banished to the west coast

¹⁴ Wheeler’s Madras, vol. i, p. 205.

¹⁵ *Ibid.*, p. 206.

(of Sumatra) as the Right Honorable Company's slave, where he may do them service and be more exemplary than by his death.¹⁶

"Tuesday, 20th December 1692.—John Dolben, Esq., Judge Advocate, acquaints that information hath been given in before him against Mrs. Katherine Nicks of several notorious frauds by her committed in Connimere whilst her husband was chief there; particularly that during the late investment she caused the Right Honorable Company's Godowns to be broke open, and forcibly took from thence great quantities of cloth of the first sort, which she applied to Mr. Elihu Yale's private use, who was then President, notwithstanding the Merchants declared that the said cloth was brought in upon the Company's account, and positively refused to consent that it should be otherwise applied.

"That upon this he (the Judge Advocate) wrote her a letter requiring her, being a woman notoriously known to be a separate merchant from her husband, to put in bail to answer the damages the Honorable Company had sustained by her illegal proceedings, which she not complying with, he issued out a warrant to arrest her, but she refusing to obey was returned in contempt. He therefore prays the assistance of the Military power to secure her in her house, being under suspicion that she designs privately to fly from justice.

"Ordered that the Captain of the Guard do send a file of musqueteers with a Corporal to the house of Mrs. Katherine Nicks, who are to obey such orders as the Judge Advocate shall think fit to give.¹⁷

"Saturday, 14th January 1693.—The Commissary-General (Sir John Goldsborough) finding the mud points and walls about the Black Town cost several thousand pagodas, and that Governor Yale had made them at the Right Honorable Company's charge, against their positive orders, and the most of the Council's express exceptions, did desire Judge Dolben to make demand of President Yale for three thousand four hundred and

¹⁶ Wheeler's Madras, vol. i, p. 219.

¹⁷ *Ibid.*, p. 260.

eighty-three pagodas, with interest, being the cost of them, and of a physic garden. Judge Dolben returns answer that he hath demanded the same and that President Yale saith he hath not done anything of that nature but what was either ordered by the Right Honorable Company or agreed to by the Council, or of absolute necessity, and desires to be heard about it before any further demands be made.¹⁸

“ Wednesday, 25th January 1693.—Judge Dolben reports from the Admiralty Court that in a trial this day between the Right Honorable Company and the late President Yale and others, for wrongs and damages done them, that the said late President has objected against the manner of giving the Gentoo Oath by the usual ceremony of fetching water and flowers from the Pagoda into Court, affirming that there was a late order of Consultation by which the ceremony of taking Gentoo Oaths was for the future established to be done before the Pagoda. Upon which report we have made inquiry of Choultry Justices and Members of Council, who all declared the way of swearing the Gentoos hath been in the Court before the Jury, by causing water and flowers to be brought from the Pagoda ; the flowers are put upon their Heads and they drink some of the water before or in the Court, and both are given and done by the Brahmin of the Pagoda, and in the presence of the eternal God, who they believe in a more particular manner to be in all Courts of Justice, are required to speak the truth.

“ We likewise sent for a dozen or fourteen of the ancient Brahmin Priests, the most eminent in the place, and asked them of the same matter, who all unanimously gave it as their opinion and knowledge that this is the way of their own Gentoo Government, swearing Witnesses in the Carnatic Country when evidence was not believed without an oath ; but that the Governor did never send or force any of them to be sworn at the Pagoda, but did cause water and flowers to be brought from thence and swear them in Court.

¹⁸ Wheeler's Madras, vol. i, p. 267.

“We therefore order the continuance of this way of swearing.”¹⁹

It is substantially the same as the way of swearing which was in use in the Supreme Court and on the Original Side of the High Court till the administration of Oaths to Hindoos and Mahomedans was abolished by Act X of 1873. Leaves of the Tulsi (*Ocimum sanctum*) and water were given by a Brahmin priest in Court to the Witness or Jurymen, who swallowed them after the oath had been administered to him by the Interpreter.

Such of the Hindoos as objected to take any oath at all appear from the following entry in the Minutes of Consultation to have been leniently dealt with:—

“Monday, 14th July 1735. —Teruwaddee, a Guzerat, attending represents to the Board that he had been summoned to answer on oath before the Mayor’s Court as a Witness in a cause there depending, and on refusal to take an oath had been fined by the Court, though he represented to them that it was contrary to the custom of the Guzerats ever to take an oath; and prayed to be relieved therefore by this Board.

“Whereupon the Board, remembering that in the year 1731 all the principal Guzerats were summoned on a Jury and submitted to a fine for non-appearance on account of this very thing; and that though the fine was for that time levied, yet the Sheriff, and all who have since succeeded in that Office, were cautioned never to return any more of that caste, that so neither they should be forced to an action against their laws on the one side, nor the authority of the Courts of Justice lessened by their not being punished for their disobedience on the other, it was agreed to have been long since settled that the Guzerats ought not to be compelled to take an oath since it was contrary to the known rules of their caste; and the Honorable Company having directed us to remit such fines laid by the Mayor’s Court as

¹⁹ Wheeler’s Madras, vol. i, p. 269.

seem to carry with them more than ordinary severity; It is agreed that the fine on Terwaddee be remitted.”²⁰

At a much later period an application was made in a suit in the Mayor's Court to examine a particular witness at the Pagoda, which being refused there was an appeal made first to the Governor in Council, and then to England, which was dismissed by the King in Council (22nd April 1796) for want of prosecution with £50 costs.²¹

In Calcutta the Court invariably insisted on all Hindoo witnesses, with the exception of those who were Pundits, being sworn on the water of the Ganges, though the Grand Jury frequently represented, and the Judges invariably admitted, the obstacles which this practice created to the administration of justice, and hardships it occasioned to conscientious individuals. Respectable witnesses were deterred from entering the Court, and those who came were not unfrequently committed because they would not act as their consciences forbade them, and the anomaly was more than once seen of a Judge committing a witness, while he gave him credit for the conduct by which the punishment was incurred. Yet no attempt was made to remedy the evil until a Madras Judge, Sir Charles Grey, was appointed Chief Justice of Bengal in 1825. Almost his first act was to exercise the power which it is obvious the Charter intended to confer; and it was directed that the witness should be sworn in whatever manner was most binding on, and not in that which most outraged his conscience, and if he objected to the Ganges water the Pundit administered the oath in some other form.²²

²⁰ Wheeler's Madras, vol. iii, p. 143.

²¹ Singana Chitty v. Puddananabadoo Chitty; Strange's Notes of Cases at Madras, vol. i, p. 67.

²² Preface to Mr. Longueville Clark's Rules and Orders of the Supreme Court of Bengal.

In the suit against Mr. Yale, Judge Dolben decided that the Company's claims were barred by the Statute of Limitations, and he was moreover, it is said, found guilty of receiving bribes for favouring causes. Accordingly on the 14th September 1694 it was resolved "that he be dismissed from the Right Honorable Company's service till their Honors' pleasure be further known; and that in the meantime due respect be given to a person of his quality and abilities, in consideration of which it is a trouble for us to part with him."²³

The President and Council appear to have reversed Judge Dolben's decree, and ordered Mr. Yale to pay the amount claimed, for in February 1696 we find him complaining to the Court of Directors that the Commissary, new President, and their accomplices had seized and sold his ships, goods and estate to the value of thirty thousand pounds or thereabouts, being almost five times as much as they had given Judgment for against him in their own arbitrary court and illegal way of proceeding.²⁴

Ten years afterwards the necessity for a law of limitations was recognized as appears from the following order made by the President and Council on the 7th May 1706 :—

"There often arising in this place great disputes and demands upon accounts and bonds of ten, twenty and thirty years standing, so that it is next to impossible to decide the same; and it being generally amongst the natives, most of which stick at no manner of villainy, for swearing, lying, forging or any other vile action to gain their end; to prevent which it is ordered that from the first of January next ensuing no bond, bill, or account shall be sueable for in any of the Courts of Justice, or the Choultry of this city, that are of a longer standing than seven years; provided that it can be proved that within the space of the aforesaid

²³ Wheeler's Madras, vol. i, p. 288.

²⁴ *Ibid.*

seven years both parties have been resident in the place six months at one and the same time, and no demand has been made of the debt in the Mayor's Court and an action commenced for the same."²⁵

A short time previously it appears to have been ordered that all Wills should be proved in the Mayor's Court, in consequence, it is said, of the Roman Catholic inhabitants having been accustomed to prove their Wills before the Capuchin Friars, and complaints having reached the Governor and Council that advantage was taken of this circumstance to convey a large portion of the effects of deceased Roman Catholics to the Patriarch of Antioch at Pondicherry.²⁶

The following extracts illustrate the method of proceeding in criminal cases:—

“Monday, 3rd August 1696.—The Choultry Justices having produced examinations taken by them concerning the murder of a child in the Black Town, and the robbing of a godown within the walls; it is ordered that the Judge Advocate do cause a session to be held on Tuesday the 11th instant for the trial of the criminals and that the examinations be delivered to the Attorney General²⁷ in order to their prosecution.

“Thursday, 13th August.—The Judge reports from the Special Court of Admiralty held on the 11th and 12th instant for the trial of several criminals, that on the 11th the Grand Jury found both the bills, viz., Chinandree and Nulla Tombee accused of breaking into a Godown and stealing a considerable quantity of Quicksilver; and Hosana and Pochera for the murdering of a child in Black Town:—The Court adjourned their trial till yester-

²⁵ Wheeler's Madras, vol. i, p. 43.

²⁶ *Ibid.*, p. 42.

²⁷ The Court of Directors in their letter to Madras of the 22nd January 1692 directed that for the better regulation of the Company's interest an Attorney-General was to be appointed for Fort St. George (Bruce's Annals, vol. iii, p. 112); but the office must have been in existence before that time, as the following passage occurs in a despatch dated the 6th June 1687, “for which our Attorney-General upon information made to him shall sue and implead the Goods so landed.”

day the 12th. Chinandree pleaded guilty to his indictment and Nulla Tombée pleaded not guilty. The Court proceeded in their trial and the Petit Jury withdrew and returned and gave their verdict, viz., Nulla Tombée guilty of petty larceny, and Hosana and Pochera not guilty of the murder. The sentence was accordingly that Nulla Tombée should on Friday next have one of his ears cut off, and be whipped and turned out of the Town. Chinandree to be executed next Wednesday at the usual place of execution between the hours of eleven and twelve in the forenoon, being the 19th instant, and Hosana and Pochera to be discharged.

“It is upon the question resolved in Council that Chinandree be reprieved from the execution of sentence of death and that he be sent to Anjengo (in Travancore) to work there in irons. In the meantime to remain in the custody of the Marshall; and that the Choultry Justices see that the sentence of the Court be executed upon Nulla Tombée.”²⁸

CHAPTER II.

The trials mentioned at the end of the last chapter took place during the Governorship of Mr. Nathaniel Higginson. He was succeeded in 1698 by Mr. Thomas Pitt, who was appointed “President of the Company’s Settlements on the coast of Coromandel, Orixá, in the Ginjee and Mahratta countries, and the coast of Sumatra;” and also to be Commander-in-Chief at Fort St. George and Fort St. David, with particular instructions to direct his attention to the administration of justice, by rehearing the cases on which complaints had been made, and to frame a table of fees to prevent extortions from the inhabitants appealing to the law Courts.²⁹

What his judicial powers were, or how conferred, I have not been able to ascertain; but after his arrival the Governor and Council appear to have superseded the Court of Admiralty

²⁸ Wheeler’s Madras, vol. i, p. 303.

²⁹ Bruce’s Annals, vol. iii, pp. 228, 230.

as a Court of Appeal; and in 1726 we find Governor Macrae engaged upon a long list of appeals from the Mayor's Court, some of which were sent home to be adjudicated on by the Directors, and even to be tried in Westminster Hall.³⁰

Mr. Pitt was the last Governor of Madras appointed by the "Governor and Company of Merchants of London trading into the East Indies." Before the end of the reign of Charles II attacks had begun to be made on their monopoly of the Indian trade, and the Revolution of 1688 stimulated the Interlopers, as the Company's commercial rivals were called, to increased activity. In 1693 an accidental failure by the Company to make the first quarterly payment of a tax imposed on their General Joint Stock by the Statute 4 & 5 W. and M., c. 15, ss. 10, 12, gave rise to the question whether all their Charters had not thereby become void. This was got over by the Company's obtaining two Charters dated the 7th October 1693 (5th W. and M.) and the 11th November in the same year, by which all persons who were members of the Company on the 24th March then last were established and confirmed as a Body Corporate and Politic under the same name, with all powers, privileges and advantages which were held or enjoyed by the said Governor and Company, or late Governor and Company of Merchants of London trading into the East Indies, on or before the said 24th day of March then last; and a number of provisions were made for the management of the Company's business in England, subsequently modified to some extent by Charters dated 28th September 1694 (6th W. and M.) and 13th April 1698 (10th W. III). The Interlopers however appear to have been the stronger party in Parliament, which now began to exercise an authority unknown in former reigns, and on the 11th January 1694 the House of Commons passed a Resolu-

³⁰ Wheeler's Madras, vol. ii, p. 399.

tion that it was the right of all Englishmen to trade to the East Indies or any part of the world unless forbidden by Act of Parliament.

In accordance with this Resolution an Act of Parliament, 9th and 10th W. III, c. 44, was passed in 1698 "for raising a sum not exceeding two millions upon a fund for payment of annuities after the rate of eight pounds per cent. per annum; and for settling a trade to the East Indies," by which it was amongst other things enacted that it should be lawful for His Majesty to incorporate all persons subscribing towards the said sum as a body politic and corporate by the name of "The General Society entitled to the advantages given by an Act of Parliament for advancing a sum not exceeding two millions for the service of the Crown of England;" that all the subscribers should and might for ever thereafter freely traffic and use the trade of merchandize into and from the East Indies; that it should be lawful for His Majesty to incorporate all such of the subscribers as should be desirous to join together so as they might be able to manage their trade as a Company, and by a joint stock; and that such persons or corporations as were thereby empowered to trade to the East Indies, should have the sole trade and traffic thereto: Provided always that nothing in the Act should extend to hinder or restrain the Governor and Company of Merchants of London trading into the East Indies to continue to trade within the limits aforesaid until the 29th September 1701.

The General Society was established in pursuance of this Act by a Charter dated the 3rd September 1698, which empowered the subscribers to trade on the terms of what was then known as a regulated Company, each subscriber being allowed to trade to the East Indies on his own account, while the Company in its collective capacity was to trade with the Asiatic Potentates, or exact reparation from them,

and was entrusted with powers for the administration of justice and for the government of forts and factories.³¹

The greater part however of the subscribers desired to trade upon a joint stock, and another Charter, dated on the 5th of the same month, formed this portion of the subscribers, exclusive of the small remainder, into a Joint Stock Company by the name of "The English Company trading to the East Indies." By this last mentioned Charter the sole trade to the East Indies was granted to the English Company "together with such other persons and corporations only as by the said Act of Parliament or Our Royal Charter or Charters, in pursuance thereof, may lawfully trade or traffic to the said East Indies," and similar powers to those conferred upon the old or London Company for the government of their forts and factories, the appointment of Governors and other officers, the raising of Military forces, and the establishment of Courts of Judicature, to consent if one person learned in the civil laws and two merchants, were granted to the English Company, who were further required to maintain a Minister and Schoolmaster in the Island of St. Helena, when it should come into their possession, and also a Minister and Schoolmaster in every garrison and superior factory which the Company should have in the East Indies, and to provide a decent and convenient place for Divine Service in every such garrison and factory, and to take a Chaplain on board every ship of 500 tons or upwards; such Ministers to be approved of by the Archbishop of Canterbury or the Bishop of London, and to be obliged to learn within one year after their arrival in India the Portuguese language, and to apply themselves to learn the native language of the country where they should reside, the better to enable them

³¹ Mill's British India, Book I, Chapter 5; Macaulay's History of England, Chapter 23.

to instruct the Gentoos that should be the servants or slaves of the Company, or of their Agents, in the Protestant religion.

But the old Company was not dead yet. They determined not only to avail themselves of the privileges which they still enjoyed, but to trade (after Michaelmas, 1701) under the privilege of private adventure allowed by the Charter of the General Society, in whose stock they had with this object invested the sum of £315,000. They also succeeded in obtaining on the 11th April 1700 an Act of Parliament (11th and 12th W. III, c. 4) "for continuing the Governors and Company of Merchants of London trading to the East Indies a corporation until the redemption of the two millions advanced by the English Company." The Governor and Committee with about one hundred proprietors of the Company accompanied by the Lord Mayor, Sheriffs, and ten of the Aldermen of London, had, agreeably to the custom of the time in the case of bills of a private nature, obtained an audience of the King at Kensington to request that His Majesty would be graciously pleased to give the Act his royal assent; and on that occasion the King was pleased to assure them of his favor and protection, and recommended a union of the two Companies to their serious consideration, as it was his opinion that it would be most for the interest for the India trade.³²

Overtures for a coalition had already been made by the English Company, and were now renewed, with the result that an Agreement was at last come to, and on the 22nd July 1702 three deeds were executed for carrying it into effect. The first was a preliminary deed executed by the managers for both Companies, whereby it was arranged that the equipments of the two Companies for the next season

³² Bruce's Annals, vol. iii, p. 293.

should remain under the management of their respective Directors. The second was an Indenture Tripartite made between Queen Anne of the first part, the London Company of the second part, and the English Company of the third part, and it was thereby agreed that the London Company should purchase as much of the stock of the English Company at par as would vest in each an equal proportion of the £2,000,000 raised under the Statute 9 & 10, W. III, c. 44 ; that in future the trade to India should be carried on for seven years on the two United Stocks in the name of the English Company, but the London Company to have an equal management of the trade ; that the London Company should in two months after the expiration of the seven years surrender their Charters into the hands of the Queen, who engaged to accept such surrender ; and that thenceforward the Charter of the English Company should be considered that of both and the two Companies should take the name in future of “ The United Company of Merchants of England trading to the East Indies.” The provisions as to the maintenance of Protestant Ministers, Schoolmasters and Chaplains, contained in the English Company’s Charter, were repeated in this Deed, with the addition that the Ministers should have precedence next after the fifth person that should be of the Council in any of the Superior Factories. The third Deed was an Indenture Quinquartite made between the two Companies and three sets of trustees, by which the Islands of Bombay and Santa Helena, and also all the forts, factories, settlements, estates and things thereafter mentioned lying and being between the Cape of Good Hope and the Straits of Magellan and the London Company’s house in Leadenhall Street and Warehouses in Great St. Helens, were transferred to the English Company.

In 1707 Her Majesty’s Government were driven to the expedient of calling for aid from every corporation in order

to carry on the War of the Spanish Succession, and among others the two East India Companies were applied to by the Lord High Treasurer, the Earl of Godolphin, for a loan to the public of £1,200,000. This seems to have had the effect of somewhat expediting the complete amalgamation of the two Companies. An Act (6th Anne, c. 17) was passed, by which they were empowered to raise the amount required, which was to be taken as an addition to the Capital Stock of the English Company; provision was made for the latter's acquiring so much of the stock of the General Society as still remained in the hands of persons who had not become members of the English Company, and which now amounted to no more than £7,200; all matters in difference between the two Companies, and the settling the terms of and perfecting the proposed union, were referred to the judgment, award and final determination of Lord Godolphin; and it was enacted that after the making of such award and the surrender of the Charters of the London Company in pursuance of the Indenture Tripartite, then the persons who at the time of such surrender should in pursuance of the same Indenture be the managers for the united trade should be the Directors of the English Company (which should then be called the United Company of Merchants of England trading to the East Indies) until such time as new Directors should be chosen for the same in pursuance of the Charter of 5th September 1698.

Lord Godolphin's award was made on the 29th September 1708, and in pursuance thereof the following deeds were executed and Charters granted. The foreign debts due to the London Company were assigned to the Queen by an Indenture dated 27th October 1708, and transferred to the English Company by Letters Patent dated the 22nd April 1709; the home debts were assigned to Her Majesty by an Indenture dated 21st March 1709, and granted by Letters Patent dated the 15th August 1710 to Sir Jonathan Andrews and others

as Trustees for the Members of the London Company; and the London Company's Charters and right to be a body politic or corporate were surrendered by a Deed Poll dated the 22nd March 1709, which surrender was accepted by Letters Patent dated the 7th day of May 1709.

These important changes could scarcely have been passed over without notice, but they appear to have had little if any effect upon the Mayor's Court at Madras, which is shown by the following extracts from the Minutes of Consultation to have been capable of acting upon occasion with great promptitude :—

“ Monday, 9th June 1718.—The President reports that some Guzerat Merchants had been with him this morning to advise him that one Trivadee, a Surat Merchant, inhabitant of this place, was found this morning with his servant hanged in his own house, and that it was supposed they had hanged themselves. That on this information he had ordered the Secretary, in the presence of the Company's Merchants and the Guzerat Merchants, to take an account of the deceased's effects and secure them for his relations.

“ Wednesday, 11th June.—The President acquaints the Board that yesterday morning he had discovered that Trivadee and his servant, who were supposed to have hanged themselves, were murdered by robbers, who had carried off a very large booty in money; that he had immediately given out orders for a strict search after the murderers, and that just now three persons were brought before him charged with that murder; that the case being extraordinary he had summoned them together to hear the examination of the prisoners and such witnesses as should appear against them.

“ The prisoners and witnesses with a considerable number of the principal inhabitants, Europeans and Natives, were called in, and the money and jewels which had been taken by the prisoners from Trivadee were produced, having been taken in possession of the several prisoners to the amount of five or six thousand pagodas.

“ On a full examination it appeared to the whole Board that there was sufficient reason to put the prisoners upon trial for their lives for murder and robbery, and it was accordingly agreed that they should be tried in the Mayor’s Court according to the Charter, and that an order be given the Mayor in the following manner :

“ On a full examination of Cadogee, Perseram, and Kisanados, who stand charged with the murder of Trivadee and his servant on the night between eighth and ninth instant, and several other witnesses concerning that murder; we do find full and sufficient cause to put the said Cadogee, Perseram, and Kisanados on trial for their lives, and in order thereto we do hereby authorize you, the Worshipful John Legg Esq., Mayor, to summon a Court tomorrow being the 12th instant, for the trial of the said prisoners and to acquit them, or on their conviction of murder and robbery to condemn them to suffer death in such manner as shall seem to you most proper to deter others from committing the like crimes.

“ Friday, 13th June.—This morning about 9 o’clock Cadogee, Perseram, and Kisanados were executed upon the Island.”³³

In the case of European prisoners the proceedings seem to have been somewhat different. Two soldiers, named Robert Grott and Richard Righty, were accused of the murder of a Native, and the whole of the enquiry appears to have taken place before the President and Council, who after examining witnesses, and interrogating the prisoners, debated upon the affair for some time, the prisoners being all dismissed the room, and then unanimously pronounced them guilty of the murder. “ But the Honorable Company having not yet procured a power to bring to an execution, it was agreed they should be continued in prison and whipped very severely every week, as a punishment for the disorders they committed as soldiers.” This was on Monday the 1st August 1720.³⁴

³³ Wheeler’s Madras, vol. ii, p. 290.

³⁴ *Ibid.*, p. 332.

It is perhaps with reference to this case that Captain Alexander Hamilton, who was in Madras in 1720, tells us in his "New Account of the East Indies," published in 1727, that they have no Martial Law there, so they cannot inflict the pains of death any other ways than by whipping or starving; only for piracy they can hang.

The power of hanging for piracy appears to have been conferred by a Commission from King George I, which is mentioned in the two following extracts from the Minutes of Consultation:—

"Monday, 17th August 1719.—The President acquaints the Board that on Tuesday the 11th instant he, with the rest of the Commissioners, for trying of Pirates, did bring Roger Bullmore, one of those that ran away with the 'George' Brigantine to his trial by virtue of King George's Commission; and that, having found him guilty of piracy, felony and robbery, they had passed sentence of death upon him and that he was ordered to be executed on Wednesday next."³⁵

"Wednesday, 18th October 1721.—Mr. Walsh brought the Key of the Cash chest and opened it, upon which there was found in money one Fanam, and some Firmanns and Husbulhookums; being 29 from the Mogul; *and the Commission for trying the pirates*; also a paper with blue seals said to be a purse belonging to Dalton deceased in Pegu. These were all the things found in the chest except some empty pagoda bags. Mr. Walsh being asked if he brought any message from Mr. Hastings (the late Governor who had left the Cash chest in this empty state) answered he had none."³⁶

It is due to the memory of Mr. Hastings, who was then very ill, and died at Madras on the 15th December 1721, to add that it appears to have been only the sudden manner in which he was required to vacate the office of Governor that caused the deficiency. On the next day he paid in ten

³⁵ Wheeler's Madras, vol. ii, p. 310.

³⁶ *Ibid.*, p. 326.

thousand pagodas ; on the Saturday following he deposited diamonds to the value of twenty thousand pagodas more, and a few days afterwards gave ample security for the remainder.³⁷

Captain Hamilton goes on to say, after instancing two cases in which he considered that Governor Yale and Governor Collet had improperly caused the execution of two alleged pirates, "That power of executing pirates is so strangely stretched that if any private trader is injured by the tricks of a Governor, and can find no redress, if the injured party is so bold as to talk of *Lex talionis* he is infallibly declared a pirate."

To modern ideas it may not appear so very strange that a private trader taking the law into his own hands in this fashion should be declared a pirate, but however that may be, it somewhat detracts from our confidence in Captain Hamilton as an unprejudiced witness to find that Governor Collet had formally declared him a rank pirate in consequence of his having, according to his own showing, written to the Governor complaining of the proceedings of Mr. Powney, the Governor's agent at Siam, and "let some hints fall of *Lex talionis* " if he met with Powney conveniently.

With regard to the administration of civil justice he says :—

"They have a Town Hall, and underneath it are prisons for debtors. They are or were a Corporation, and had a Mayor and Aldermen to be chosen by the free Burgesses of the town, but that scurvy way is grown obsolete, and the Governor and his Council or party fix the choice. The City had laws and ordinances for its own preservation, and a Court kept in form, the Mayor and Aldermen in their gowns, with maces on the table, a Clerk to keep a register of transactions and cases, and

³⁷ Wheeler's Madras, vol. ii, p 357.

Attornies and Solicitors ³⁸ to plead in form before the Mayor and Aldermen, but after all it is but a farce, for by experience I found that a few pagodas rightly placed could turn the scales of justice to which side the Governor pleased, without respect to equity or reputation.

“In smaller matters, where the case on both sides is but weakly supported by money, then the Court acts judiciously according to their consciences and knowledge, but often against law and reason, for the Court is but a Court of conscience, and its decisions are very irregular; and the Governor’s dispensing power of nulling all that the Court transacts puzzles the most celebrated lawyers there to find rules in the statute laws.”

This unfavorable opinion of the Mayor and Aldermen does not seem to have been shared by their Honorable Masters in England, for in 1726 the Court of Directors, in order to have their affairs managed with greater authority than ever hitherto, applied to get the management of the civil affairs as near as they could agreeable to the practice and method of the Mayor’s Court at Fort St. George.³⁹

JOHN SHAW.

³⁸ There were no Barristers in Madras until the institution of the Supreme Court.

³⁹ Letter to Bengal, 17th February 1726; Auber’s Rise and Progress of the British Power in India, vol. i, p. 29.

III.

THE MADRAS HARBOUR.¹

A HARBOUR on the Eastern Coast of India has been a desideratum for a long time, and it is only now that this want is on the point of being supplied.

There is no doubt a general opinion that the formation of a harbour at Madras is a difficult undertaking, and that opinion, as a whole, is correct, though the difficulties are of a kind probably different from those which uninformed persons would have imagined.

Some of the earliest and most serious difficulties arose from the fact that though there was a general unanimity in favour of Madras being provided with a harbour, there was a very great diversity of view as to the particular way in which the harbour would be of use. The sentiment of humanity is strong in mankind, and many persons pictured to themselves a harbour as a safeguard against the harrowing scenes which from time to time occurred of ships driven on shore during cyclones, and dashed to pieces, with the loss of their crews, almost within arm's length of the spectators, who were powerless to help them. This to the unlearned landsman seems a conclusive argument; but what do the sailors, the persons most interested, say? A large proportion, perhaps the majority, of sea captains say, "Oh, in a cyclone the harbour is no place for me, with its crowd of shipping and inevitable collisions; let me get to sea and give the land a wide berth, or if that cannot be, I will take my chance of

¹ The substance of the following paper was originally delivered as a popular lecture at the Government Central Museum. It is now reproduced with some additions and alterations.

riding it out in the roads, with my two heaviest anchors and plenty of cable out." After this, what wonder if the less impressionable critic says "What's the use of a harbour in which ships can't remain in a storm?"

Another philanthropist contends that, as there is no harbour between Trincomalee and the Hooghly, an intermediate place of refuge is an absolute necessity. The sea captain replies, "If I am caught in a storm in the Bay of Bengal, I shall keep the sea and manœuvre myself out of the cyclone as soon as I can, and not court destruction by running for Madras or any other harbour." Again the critic steps in with a triumphant air, and these two points having been apparently made, the supporters of the scheme have an up-hill fight to make.

Now the fact is that this unfavourable conclusion is based on exaggeration on both sides. The philanthropist, in his ignorance of nautical matters, gives undue weight to his arguments, forgetting that they apply only to a very rare condition of things. Our nautical friend, with his characteristic spirit of independence, prefers his own safeguards to those provided for him in the harbour by the port authorities; and the critic tries to force a conclusion from a doubtful argument based on an exceptional state of things, ignoring the more ordinary course of daily events.

Now, the fact is that the harbour may be made, and I believe will soon be acknowledged to be, as safe for a ship in a storm as the open sea under sail or steam, or the roadstead with a long cable out; but the question of harbour or no harbour does not turn on that. I believe that occasionally a ship might find Madras a useful refuge, though the great majority of vessels might pass it unheeded; but the question does not turn on that. The prominence given to these points has done mischief to the cause. They served to screen

the really cogent argument, which is the uninteresting one of *pounds, shillings and pence*.

I must ask attention for a few minutes to this view of the question. Look at the position of Madras in its relation to India behind it, and the great highway of the ocean in front of it. Leaving the question of how it became so, here it is, a great emporium of trade with every facility for communications inland, by railway and canal, and within hailing distance of the ships which convey its merchandize over the sea. But between the stores on shore and the ships on the sea there is a barrier—the surf. This surf is bad enough as a cause of discomfort to passengers, but its effect on goods is even worse. Conveyance over that short mile is as costly as over forty miles of railway, or one thousand miles of sea, while goods are damaged and pilfered, and sometimes for days together communication is entirely cut off.

Now, can the horrors of this “middle passage”—horrors which in a greater or less degree of intensity exist every day and all day long, and not merely at exceptional stormy seasons—be abated? Yes, by the formation of a harbour. This will enable the landing and shipping of goods to be effected at one-third the cost, and without damage or loss by pilfering, by a larger and more convenient description of boat than the existing masula boat, and with comparatively little delay from bad weather. This saving on the cost of transporting goods between the ship and the shore will be at least equal to the interest on the cost of the harbour, while there will be thrown in gratuitously the contingent advantages of saving of damage, saving of insurance, greater comfort to passengers, less detention of ships, less wear and tear and damage to ships’ sides and their tackle, freer communication between ship and shore for incidental purposes, whatever additional safety there may be in exceptional storms, and whatever advantages there may be in a harbour of refuge. It

will also facilitate the development of trade by making Madras available as a terminal port rather than, as it is now, almost exclusively a port of call for vessels bound to and from Calcutta ; and for this its commanding position towards China, the Straits and Australia gives it great importance.

Thus the harbour will pay for itself, will confer various incidental advantages on the present trade and population, and will open the way to a new class of trade.

These representations, when made seven years ago, seemed oversanguine, but, so far as they have been brought to the test of experience, they have as yet been confirmed. The cost of the works seems likely to be within the amount originally estimated, while even now, before they are finished, the cost of boat hire and, notwithstanding the recent inexplicable exception of the 'Assam,' the discomfort of passengers materially diminished.

I have thought it necessary to dwell on the true objects of the harbour, because, without a clear notion of them, and the removal of the possibly still existing false notions, the purposes of the design would be scarcely appreciated.

Now a few words as to the general design. The natural features of the Madras shore are well known—a dreary line of sandy beach beaten by never-ceasing surf. There is deep water and good holding ground near the shore. So much for land and sea. The atmospheric conditions are less simple, and they introduce complications in the shore and sea. The year is divided into two monsoons—north-east and south-west—when the prevailing winds are from those quarters. But the winds themselves little affect our subject. These winds throw a swell on shore from the north-east in the monsoon of that name, and from the south-east during the south-west monsoon, each, it will be observed, making an oblique angle with the shore. The effect of this oblique wave

is to drive the sand upon the beach before it. Every wave as it breaks lifts up a certain quantity of sand, carries it a little way alongshore, and then as it retreats drops it again. Thus all the sand on the surf-beaten beach is in motion, northward for one portion of the year, southward for the remainder. This fact has long been known and utilized by placing stone groynes which arrest the sand in its motion, first in one direction and then in the other, and so widen the foreshore. The movement of the sand has been popularly attributed to the current, but no current could produce the effect. It is a simple wave action. There is a current alternating with the monsoons at some distance from shore, but it is a mere surface current, and does not in the least affect the sand on the shore or in the bottom of the sea.

These were shortly the local physical conditions to which I had to adapt my design for a harbour, and the result of the best consideration I could give to the subject is shown in the accompanying plan and in the works now approaching completion. The proposal was in 1873 submitted to the Government of Madras, then presided over by the late Lord Hobart. That nobleman warmly supported it, and recommended its adoption to the Government of India and the Secretary of State. There was no very great opposition to its physical features, and no alternative scheme was proposed, although some attempts were made to revive the idea of a detached breakwater parallel with the shore. The scheme, however, was strongly opposed on financial grounds. It was contended that my estimate of cost was insufficient, and that my estimates of the saving in the expenses of landing and shipping and of the tonnage of cargo were excessive. The result, however, after fifteen months of warm discussion, was that in March 1875 it was sanctioned by the Secretary of State, and immediate arrangements were made for the commencement of the works.

MADRAS HARBOUR.



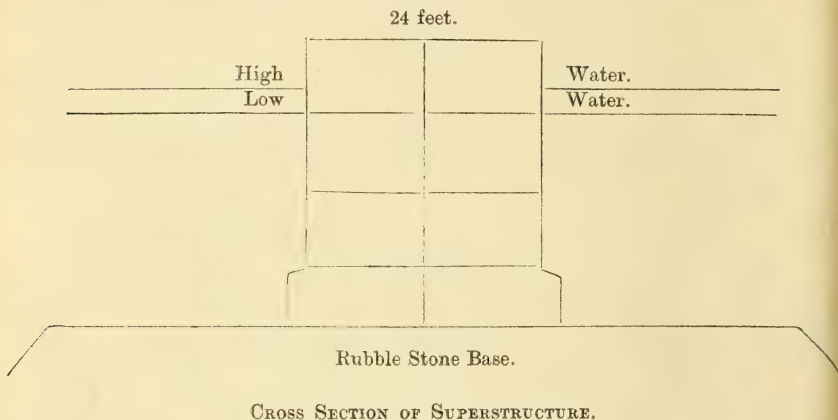
The late Mr. James May, who, on my recommendation, was appointed superintendent of the works, shortly afterwards left for Madras, and I occupied myself in England in preparing the necessary plant and machinery.

A few weeks after the final sanction was given occurred the lamented death of Lord Hobart, to whom more than to any one probably is due the credit of providing a harbour for Madras.

Before proceeding to my short narrative of the progress of the works, I would direct attention to some of the constructive principles involved. Nothing can be simpler than the general design. It is merely the enclosure of a basin about 1,000 yards square by means of breakwater piers, with an opening facing seawards for the access and exit of ships, and this is placed in a depth of 48 feet of water. Through that entrance alone can any wave enter, and when it enters it will expand over the whole width of the harbour, spending itself as it does so until it becomes insignificant. With the prevailing seas from north-east and south-east, which will enter the harbour very obliquely, it is expected there will be very little movement inside. With the comparatively rare seas from the eastward there will be a little more commotion, but not enough in any case to affect ships, though it may sometimes retard landing and shipping cargo for a day or two.

The piers themselves consist of walls of concrete blocks resting on a base of rubble stone. They are extremely simple, and yet a moment's consideration will make it evident that they are not quite the kind of structure which can be executed by hiring a party of coolies and telling the maistry to go to work as he likes. Concrete blocks of 27 tons weight and a level bed of rubble stone 24 feet below the surface of the open sea are requirements rather beyond the unassisted powers of the native cooly. At the same time they are requirements which are not likely to have been determined

on without some consideration as to their necessity and their superiority to other modes of attaining the desired purpose.



It would require too much space to describe fully the grounds upon which the several features of this form of breakwater were determined on, but one or two points are necessary to make what follows intelligible.

Many years ago one of the questions under warm discussion among engineers was the relative merits of an upright wall or a flat slope to withstand the force of the waves. On the one side it was argued that as the effect of the sea was to form shingle, sand, or any other moveable material into a slope more or less flat, as is seen on every beach, the outer face of a sea barrier should take the form nearest to that which the sea would make for itself. On the other hand it was said that as the sea has beaten for ages against the upright faces of granite or basalt rocks without affecting them, so it would do against an artificial face of equal solidity.

Much learned theory as to the nature of wave movement was advanced on both sides, but the question seems now to have resolved itself into one of money. Successful sea

barriers have been made upon both systems ; the sea has asserted its supremacy over other examples of both kinds. By common consent theory has been pronounced to be inapplicable in its present imperfect state.

What an engineer now looks at is whether he can make one or the other kind of structure cheaper, fulfilling the necessary conditions of stability. Generally speaking, where stone is plentiful and cheap he will adopt a slope of it for the sea to spend itself upon ; where it is expensive, and his object is to use as little of it as possible, he will adopt the upright wall. In the case of Madras the latter system was adopted simply because its cost was found to be about half that of the slope. All the stone in either case would have to be brought many miles by railway at a certain cost per ton, and it was cheaper to take a few tons and convert them into materials for an upright wall, than to convey a great many more tons and throw them in their natural state into the sea.

It will be easily understood that in order to build an upright wall without mortar—and it is impossible to use mortar under water or for some distance above water,—the stone must be converted into such regular shapes that there shall be only small interstices between them. Formerly the plan was to cut the stone itself, but now for sea-work the almost universal plan is to form the rough stone into concrete blocks, which can be made of any required shape and size. When natural stone was used, it was rare to get a block of 10 tons weight fit to be squared, and 2 or 3 tons was more like the average. The weight of the Madras blocks is 27 tons, and about the same weight is adopted at several other similar works ; but in some cases much larger blocks have been used, and at Dublin blocks of 350 tons have been made above water and conveyed to their place in the work and deposited by specially devised machinery.

Now, it will be seen that, in undertaking to build an upright wall in the sea, the engineer has to determine certain points which in the case of a slope the sea may determine for him. If he throws a heap of stone into the sea it stands at first at a steep slope, but the waves soon flatten this down, drawing out the foot and cutting away the top, and if the slope so made does not effect the required purpose, he simply adds more stone till he gets what he wants.

But in the case of the upright wall, the sea gives him no help except by guiding him to that wisdom which is the result of experience. If Father Neptune does not like his first wall he simply washes it down and leaves the poor engineer to find out where the fault was which he must avoid in his next attempt. This has been done so repeatedly that the lesson has been pretty well impressed upon us in some respects. What Neptune insists upon most uncompromisingly is an ample depth of foundation. If the natural foundation is solid rock we may build upon it with materials as solid as the rock itself, and Neptune is satisfied. But on the Madras shore there is no solid rock, there is nothing but sand, and in such a case the only security consists in *depth*.

It is found by experience that the waves have their greatest force near the surface. At a depth below the surface, which varies with the height of the waves, there is no motion in the water. At lesser depths there is motion, sufficient near the surface to roll over masses of stone of many tons weight, sufficient at a few feet depth to disturb rubble stone in smaller masses, sufficient at a still greater depth to disturb *sand*, and at one still greater *mud*. Each material is stable at a certain slope above these levels if the wave runs freely up and down it, but if any abrupt obstacle is placed upon the slope the motion of the wave is interfered with, and it resents the interference by tearing up the material upon which the obstacle is placed.

If, however, the obstacle is placed below these levels the wave has no effect, and if the obstacle be an upright wall its foundation is as secure as if it were entirely on dry land.

What we have to do, therefore, is to ascertain at what depth below water a given material is immoveable under the action of the waves, and take care that that material forms no part of our structure, or of the support of it, above that level.

Now, simple as this principle seems to be, it has not been applied in practice without much battling with the waves. Notwithstanding a popular belief to the contrary, engineers will not be parties to spending their employers' money unless they clearly see an equivalent; so the costly practice of building under water by the help of divers was not resorted to till the plan of laying the foundations of the upright wall of masonry at the level of the lowest tides had been fairly tried. But Neptune would have none of this. Incensed by the invasion of his territory by a huge mass, too heavy for him to remove by direct force, he attacked the looser material at its foot, and round its end, till it was undermined, and then the wall, however well put together, fell to pieces, and the pieces were rolled about by the waves.

So the engineers conceded 6 feet, and employed divers to prepare the foundation at that depth. But this was not enough. The next *moderately* heavy sea, perhaps, had no effect upon the work, and delusive hopes of success were raised, but in a few months came one of greater severity, and it became evident that Neptune claimed for his own 6 feet under water.

Then 12 feet was tried, and it is debateable whether, in very exposed situations, this is sufficient or not. It has proved to be so in some cases of exposure to tremendously heavy seas, but in other cases there are indications to the contrary. But now a new element comes in. If we must employ

divers at all, it is as easy for them to work in 24 feet depth as in 12; so why not make assurance doubly sure by going to a depth about which there can be no doubt? So in the case of the Madras piers, and one or two other works designed about the same time, the principle of founding in the least depth possible was abandoned, and a depth adopted which gave the most economical proportions of rubble stone and concrete block work. But though 24 feet is more than enough depth for the stability of rubble stone, it is not enough for the stability of sand; so if we had founded directly on the sand we must have gone lower still, and against this there were economical reasons which I need not name here.

Now that I have given my reasons for adopting an upright wall, founded on rubble stone at a depth of 24 feet below the surface, it may appear that, good as those reasons may be for those parts where there is a depth greater than 24 feet, they do not suggest how the problem is to be solved when the natural depth is less than 24 feet. If sand is an unsafe foundation at 24 feet, what is to be done where the sand is naturally only 12 feet under water? And if rubble stone is unsafe at 12 feet, what is to be done where there is a natural depth of only 5 feet?

In this question is involved the history of the whole difficulties of execution of the Madras Harbour Works. Where we have depth for our normal section its construction is all plain sailing. It is simply the application of the calculated quantum of material, of machine work, of hand labour. We laugh at Neptune. He cannot touch our sandy bottom, because it is far below his limit of 24 feet. He cannot touch our rubble stone, because it is far below his limit of 12 feet, and hitherto he has not been able to disturb our blocks at the surface because they are too heavy for any force he has as yet been able to bring against them.

But where the element of 24 feet depth, the limit of stability of sand,—of 12 feet depth, the limit of stability of rubble stone,—of depth enough even for a big block of concrete,—where these elements were wanting, we could not carry out our well-devised section with its different materials at their proper depths. We were driven, per force, to some other system, or rather succession of systems, as we got nearer and nearer to our ultimate requirement of a depth of upwards of 24 feet.

Thus then the work divides itself into two great divisions: that in which we *can* apply our system in its integrity, and that in which we *cannot* do so. It is, perhaps, for some reasons unfortunate that the last-named division had necessarily to be executed first, as it is the division adjoining the shore, being in fact the first 1,000 feet out of a total of about 4,000 at each pier.

This division of the work, which is based on first principles and not from our special experience on this particular work, will perhaps recall to recollection the fact that three or four years ago, when the work was in its earlier stages, its progress was by no means so rapid, or to the view of the outsider so apparently successful as it has since been. The cause is now obvious. We really had a much more complicated problem to solve. We had to force our way through and over sand where it was liable to be disturbed by the waves; we had to push out rubble stone where every wave was liable to roll it about in every direction; we had to place concrete blocks on a foundation necessarily so little below the surface that the waves could undermine them. All these difficulties became apparent to the outside critic when they were actually encountered, and we must excuse him if he failed at the time to recognise the fact that they were anticipated by the engineers and provided against as far as it was possible to do so.

I have now to show that we had a system in our proceedings. I started by explaining the principles of the two rival systems of breakwaters, the upright wall and the flat slope. The former was adopted for Madras because of its less cost, but as a certain depth of water is an essential condition of it, it was inapplicable where that depth did not exist, and we were driven necessarily to adopt the other to begin with, and then more or less gradually to make the transition to the upright wall. Now, for the flat slope, all that is wanted is plenty of rubble stone: quality is not of much importance. We simply want to get a sufficient area covered with a material less liable to be influenced by the waves than sand. We want to push this out into such a depth of water that it will bear a superstructure of concrete blocks to withstand the greater force of the waves at the surface. For this purpose a neat bank with a given width of top and slopes of a regular inclination is a simple impossibility. The sea, not the engineer, determines what the form and dimensions of the bank is to be, and the engineer has only to provide stone enough for the sea to work upon. Neptune will do the rest.

Now, to return to our narrative: this is the work which was begun with the year 1876. Laterite was pushed out as fast as it could be obtained. The water-line was soon reached, but the bank of rubble was pushed ahead into the surf. The surf attacked it and tore down the slopes—never mind—it will only widen them, which is just what we want; push ahead—let the sea do its worst, it can do no harm, at least while the south-west monsoon lasts and the waves drive it northward. All this apparently aimless battling with the waves was no doubt trying to the patience of the looker-on. One day the bank was 100 feet into the surf, the next day under water, or carried away to the northward, and no result visible. But nevertheless there *was* a result. Where a few months previously there was only a line of soft

sandy beach, there was now a promontory of much harder material, pushed out into a depth that concrete blocks could be set with due care for the foundations. The work of the year 1876 is now scarcely recognizable except in the curved line of rubble stone slope between the shore and the concrete block work of the pier. It looks rough and uninteresting enough, but it may invest it with some interest when I tell you that not one of those laterite boulders was placed where it now lies by coolies' hands, but was rolled in by the waves from a point 100 or 150 yards to seaward where the bank had been originally formed, and yet nothing could be better placed to form a barrier against the seas of the north-east monsoon. For five successive monsoons it has been battered by those seas without further injury or change than a little waste which can be easily repaired, and a little additional flattening which is an advantage.

It was while this work was going on in May 1876 that Mr. May, the first superintendent, died, and the local charge devolved for some months on Mr. Beardmore, his assistant. This was, no doubt, a disadvantage, for though Mr. Beardmore did all that was possible during the interval before the arrival of Mr. Thorowgood in August, still the work was in a state in which more than ordinary experienced watchfulness was required on the part of the superintendent, and a change of command was most undesirable.

With the north-east monsoon a change of system was introduced. The Titan Crane was brought to bear, and some concrete blocks were set in the line of the pier. They were not, however, of full size, nor were they set in any permanent way, and a more than usually heavy sea at the end of October dispersed them. It was not till the middle of December that the work of block-setting was fairly started, but the Titan was then got permanently into its line of action, and

the difficulties of the surf bank, and the exaggerations of them by the outside critics, were at an end.

It was while this work was going on that a new evil seemed to threaten us. I have already explained that the tendency of the south-easterly seas prevalent in the south-west monsoons is to drive the sand along the beach to the northward. Where an obstacle is placed, this motion is stopped, and the sand accumulates to the south of the obstacle, and is cut away to the north; so now, when our surf-bank formed such an obstacle, a large area of beach was found on its southern side, while it was cut away so as almost to threaten the Royapoorum Railway Station on the north. This went on till October, but then the accumulation ceased, and as the northerly seas set in it began to cut away on the south side. For the time, however, it looked rather formidable even to those who had anticipated the action; but when closely examined and reduced to figures, it was found to be well within the limits which had been reckoned as presenting no serious objection to the scheme, and for the time at least popular apprehension was allayed.

During the following three months of January, February and March, good progress was made. The concrete blocks were advanced about 300 feet into the sea. But they were not sunk—they could not be—to the depth necessary to prevent the rubble stone on which they lay from being acted on by waves, and this part of the work was of really very difficult execution. As will be evident to any one who visits the spot, the blocks for the first 200 feet at least are very irregular, and I must explain the cause of this. They were laid on the washed down remains of the surf bank, and this was so little below the surface that the sea was constantly breaking on it, and it was impossible for men to stand to level it either with or without the help of diving apparatus. That it was made so regular as it is, is due to

the energy and skill of Mr. Lowe, the chief foreman, and I am bound to say also to the activity, willingness and amphibious nature of the native workmen, and the convenience of the national costume. I doubt if it could have been done, at least in the way it was done, by English labourers.

I must dwell a little on those first 300 feet, because they illustrate, in a very interesting way, the difficulties incident to the transition from the flat slope system to the deep-water upright face system. It was built, as I have said, in the first three months of 1877. For a reason which I shall presently explain little or no advance was made in April and May, and in the latter month a cyclonic sea attacked it. The result was precisely what might have been expected from the principles I have explained as to the conditions necessary for the security of an upright face.

The blocks themselves were too heavy for the sea to move, but the rubble stone on which they lay was at too high a level for stability under the action of the waves. For the first 100 feet where the rubble slope had already been well washed by a previous sea into a very wide flat bank, which itself spent the waves, the blocks did not move, the sea had already done its worst on the rubble; but for the second 100 feet where the bank was newer and narrower, though its level was lower, and in that respect nearer the condition of stability, the rubble was disturbed, the blocks undermined, and the outer edges dropped some two feet. Beyond that again in the third 100 feet the rubble base was still lower, and within the limit of stability for that storm at least, and the blocks were unmoved. There could be no better practical proof of the principle that security may be attained either by an ample flat slope of rubble, or by keeping the rubble down below the action of the waves. The part in which these conditions were only imperfectly fulfilled suffered. The rest did not.

I may mention that the slope in front of the damaged part has since been extended and covered with a mass of large blocks below water, and though many equally heavy seas have attacked the place, no further damage has been done. The dropped blocks are obvious to any one passing along the pier.

The mode in which these "protection blocks" were placed in position may be worth record. A bank of laterite about 10 feet wide was formed against the north face of the breakwater nearly level with its top. Upon this 10 feet were built during the fine weather at the latter end of the south-west monsoon a number of blocks each about 8 feet cube and 32 tons weight. While the sea was smooth the loose laterite on which they stood was undisturbed, but with the north-east monsoon seas of November and December it was cut away from under the blocks and the latter fell just into the place where they were required to protect the foot of the breakwater blocks. Thus the destructive action of the sea was utilized against itself.

We now enter upon a new and very important chapter in the history of the north pier. It has now reached a depth of about 15 feet; there is a thin bed of rubble stone under the blocks, which are three deep; deeper water is ahead; some rubble base had been deposited ready for advancing the block work, and all looked promising for our soon reaching that depth of water which we looked upon as the limit of our transitional difficulties. But it was not to be yet. 15 feet of water over sand on a surf-beaten coast is a treacherous condition of things. My colleagues and myself were well aware of this, and in writing to Mr. Thorowgood in March I incidentally mentioned that I thought some changes of the bottom might be anticipated with the change of the monsoon. This letter crossed one from him announcing that on examining the bottom at the foot of the blocks on

the 31st March, after two or three days of rough weather, the rubble base was found to be buried in sand; and so it remained with but little intermission for nine tedious months.

I have already said that disturbance of some kind was not unexpected, but what form it would take we could not anticipate. I never doubted, nor I believe did my colleagues on the spot, that if we could once get over the accumulation and reach deep water, we should leave the trouble behind us; but I am bound to confess that to a casual observer who did not go deeply into the principles of the matter it was very like carrying the sand out with us, which was the result so often predicted. It was true that no intelligible ground for such a conclusion had ever been suggested; still repeated assertion, however groundless, does carry weight, and, though I had the firmest confidence in my own theory, I could not but feel that it was so far only theory, however sound; and others, those who held the purse-strings, might not weigh it so carefully as I had done. I confess that I felt at this time very anxious as to whether the authorities would maintain the same confidence which I myself felt in the ultimate success of the Madras Harbour Works.

My own reason for feeling confident that this accumulation was a result entirely distinct from that which formed the accumulation at the shore line was shortly this. The motion of the sand under the influence of the waves must be in the same direction as the movement of the waves themselves, that is, transverse to the shore until diverted by the shore itself. It is the impinging of the wave on the shore which causes the alongshore movement. This component of the movement therefore must have its maximum at the water line. It must become less and less as we recede from the shore, till it vanishes altogether in that depth of water where the wave is not affected by the bottom. It followed that

whatever component of alongshore movement there might be in a depth of 12 feet, there would be very much more at the shore line. As in this case there was none at the shore line, there could be none in 12 feet depth. The accumulation was therefore no part of the regular alongshore movement which caused such uneasiness the previous year. It must be something entirely distinct, and it must be primarily due to a wave motion transverse to the shore. It might be caused in some way by the abrupt projection of the pier. If so, it would not be repeated when the pier extended to deeper water. It might be an annual or an ordinary occurrence, hitherto unnoticed as not affecting navigation, probably consequent on the change of the monsoon; but if so, it was one which would continue as before outside the harbour, though it would be prevented from being repeated inside. What was wanted to ensure freedom from future inconvenience, was to carry the abrupt end of the pier into a depth of water too great for the waves to be affected by the bottom.

I make quarterly reports to the India Office. In the report on the March quarter I mentioned the appearance of the sand, and hoped it would not prove a serious obstacle; at the end of the June quarter it continued, but that quarter is always a bad one. In September I could only vary the story in words; the sand had increased and was now some 5 or 6 feet deep, but I reiterated my belief that it was only a local accumulation. I watched the history from week to week through October, November and December, and it gave little hope; but while I was preparing my report with the last December and early January letters before me on the 31st January 1878, a telegram was put into my hands announcing an advance of 70 feet in the month! That telegram relieved my anxieties. I should not be surprised to hear that it saved the Madras Harbour. 70 feet could not have been built unless the foundation were clear of sand, and once clear of it, I knew

we could outstrip it. We soon reached our required 24 feet depth, and I need not say that we have seen no more of the sand in the foundation of the north pier. So ends the history of the difficulties of the north pier.

The history of the south pier would be little more than a repetition of that of the north. In consequence of the famine traffic in the early part of 1877 occupying the whole of the Madras Railway Company's resources, and at the same time rendering a passage of railway trains along the beach impracticable, we were driven to another quarter for rubble stone, which was now brought from Pallaveram by the South Indian Railway. Owing to its less exposure to the northerly seas, the circumstances for the execution of the south surf bank were much more favourable than for the north, and the supply of concrete blocks being ready at an earlier period, it was not necessary to push the rubble bank out so far. Mr. Thorowgood availed himself of these favourable circumstances with much judgment, and the south pier made a start less open to outside criticism than its predecessor. The first concrete block was set in November 1877, and the work progressed favourably till the beginning of the south-west monsoon of 1878. Then, however, the sand appeared just as it had done at the north pier, and the history repeated itself. What little progress was made in the next nine months was effected by struggling through the sand, but in January 1879 the difficulty was passed and has not reappeared.

It must not be supposed that the executive staff were looking on idly at the work being buried in sand. Many were the ingenious devices for digging it out, and pushing forward the concrete blocks; but it was not an encouraging task, and the result was small compared with the pains bestowed.

The two short pieces of the piers which were constructed in this way, by struggling as it were through the sand, are

not altogether in accordance with the principles I have explained as necessary to the stability of the work. There is sand within the prohibited depth below water. It could not be got rid off entirely. Its presence made itself felt in the first heavy sea. The work stood well enough while the sea was calm, but the waves soon found the sand within 12 or 15 feet of the surface, and either sucked it out or so washed it into the interstices of the rubble stone that hollows were formed under the blocks, and the latter sank a little—as before at their outside edges—causing an opening along the middle of the breakwater. But the first storm brought the whole to a solid bearing, and it has never moved since. A slight inequality in the level of the blocks is all that remains to show the position of these once formidable difficulties.

We have now passed over the sites of the difficulties of the Madras Harbour Works. As will be seen, they occupy but a small space compared with the whole, and less than 500 feet of each pier out of total lengths of three-quarters of a mile each, and now we are fairly started on our straightforward race against time.

Here then may be an appropriate stage at which to give a short description of the means employed to produce the result, which, as I said before, requires a little more elaborate design and forethought than can be expected from the gang of coolies and their maistry. Hitherto the arrangements have had to be modified to suit the circumstances of the work in shallow water, and it would be tedious to describe in detail all those modifications, but now the plan is applicable in its integrity.

We will begin then with the deposit of the rubble base. When the work is in full progress, about 2,000 men and as many women are employed at Ambatoor, 10 miles from Madras, on the line of the Madras Railway, under a native

contractor, quarrying laterite ; and about the same number under another native contractor are employed at and near Pallaveram, 14 miles distant on the line of the South Indian Railway, quarrying granite. The management of the quarries is left almost entirely to the native contractors, who simply supply the stone at so much per ton in the railway waggons. It is good evidence of the merits both of the contractors and of the superintendent that the same men have carried on the contracts from the beginning and without any serious or lasting dispute. When loaded into the railway waggons, the stone is conveyed by the Railway Companies to the north and south piers respectively. It is then removed from the waggons in the most primitive manner conceivable, being carried on the heads of coolies, men, women, and children, to the steam hopper barges or cargo boats lying alongside the pier. These steam hopper barges are the first articles of special design which have come to our notice. They were built on the Clyde in 1875-76, and steamed out to Madras *viâ* the Suez Canal. They differ from ordinary vessels in having their holds made with false bottoms closed by strong doors. These doors are, of course, closed while the vessel is receiving its load and while it is transporting it to its destination, but when it has arrived at the required spot, as indicated by buoys and landmarks, the chains holding the doors are let go, and the load of stone drops to the bottom. Each vessel carries about 130 tons.

It was, of course, impossible to use these vessels till there was a suitable wharf for them to come alongside to load, and they could only discharge where there was sufficient depth of water for them. In the earlier stages of the work, first catamarans, then masula boats, and afterwards the larger cargo boats carrying about 12 tons each were employed, and these latter are still kept on as auxiliaries. It may be imagined that no small degree of system, care, and watchfulness is

required to keep this deposit of stone within bounds. If the steamer drifts 50 feet while the doors are being opened, 130 tons of stone worth 260 rupees are wasted ; and if dropped on the top of the bank already complete, but quite out of sight, not only is the stone wasted, but it has to be removed by divers at an expense far exceeding its original cost. This department of the work is now nearly finished, and I think with as few mistakes in the place of deposit as has ever been accomplished in work of this kind.

At the best, however, the top of such a bank of stone must be rather irregular, and before the blocks can be set upon it, it must be levelled. This is the work of the divers, who descend from a boat moored just in front of the block work, where by means of the overhanging Titan which I shall presently describe, depths can be measured more accurately than can be done from the surface of the ever-changing sea. They make a perfectly level bed about 21 feet under water on which the blocks can be set in true position. They afterwards settle down two or three feet deeper by the consolidation of the rubble below.

The rubble base being now prepared to receive the concrete blocks, we have next to see how the latter are prepared. The use of concrete blocks in sea work is not of very old standing. I believe I made the first myself about thirty years ago. These were rather under 7 tons weight, and, being then considered too heavy, the weight was reduced. The blocks of the Madras Harbour Works are 27 tons. About one-tenth part by measure consists of Portland cement, of which 23,323 tons have been imported from England and 4,440 tons manufactured at Madras. The other nine-tenths consist of broken stone and sand. The stone (granite from Pallavaram) is crushed by machinery into pieces averaging the size of an egg. Then this is lifted to the top of a platform by machinery worked by the same engine that works the stone

crushers. On the platform it is mixed with the required proportion of sand and cement, all carefully measured, and these three ingredients are thrown together into one of a number of pits in the platform ; at the bottom of each pit is a door, and under the door a kind of cast-iron churn called a mixer, into which the ingredients drop through the door. Here a given quantity of water is added, the door of the mixer closed, and the whole revolved a certain number of times. The same engine as before works the mixers. The mixer stops of its own accord when it has made the required number of revolutions and with its door downwards. The door is then opened, and the concrete, now completely mixed, drops into a wooden box called a skip, of which two are placed on a railway truck. The two skips being filled from two adjacent mixers, the truck is run off by three or four coolies to the blockyard. Upon the platform of the blockyard are placed strong wooden boxes with moveable sides, the size of the blocks. A small hoisting crab upon a travelling timber framing which spans the blockyard lifts the skip from the truck and runs it over the wooden box, into which its contents are capsized. There they are spread about and trodden down, and a certain proportion of uncrushed lumps of stone are added, so placed that each is completely surrounded by concrete without touching either the sides of the box or the neighbouring lump. These are simply to make up the mass of the block with a material cheaper than the true concrete. I should mention that the interior of the box or mould is not quite unoccupied when the concrete is shot into it. There are previously placed upon the floor within it two small inverted wooden boxes, about 15 inches square and 12 inches high, and above these two vertical planks 9 inches by three inches, the feet of which pass through the tops of the boxes, and the tops stand above the top of the mould. Round these the concrete is rammed. These planks are

afterwards drawn out from the mass of concrete, leaving two vertical holes through the block, the use of which I will presently describe.

After the block has stood for 24 hours, the sides of the box are removed from it, and it has now nothing more to be done to it except a little watering till it is hard enough to be taken away. A month is the minimum time required for the process of hardening, and two or three months are preferred. We have room for 1,200 of these blocks. The greatest number carried away in any one month (September 1880) was 776, so that there is about six weeks' supply at the maximum rate.

Now, suppose the block to have performed its six or eight weeks of hardening process, it is now ripe to go forth to its final destination in the breakwater. First two strong iron rods called lewises with spade-like feet are passed down the vertical holes from which the planks were drawn out. They are then turned round a quarter of a circle, which the spaces within the boxes at the feet of the lewis holes enables them to be, and the shoulders of the spade-like ends then prevent their being withdrawn. Then a lifting machine, termed the Goliath, is brought over the block. It is slung by means of the eyes in the heads of the lewises, lifted 2 or 3 feet, and placed upon a strong truck; the locomotive engine is attached, and it is drawn away slowly and carefully to near the end of the pier. Here is a siding into which the engine now runs, drawing the block after it by means of a rope. But after the engine has passed into the siding the points are turned to the main line on to which the block is drawn. Then the engine runs back behind the block and pushes it under the Titan.

The Titan consists of an elevated platform running on rails laid on the breakwater. Part of this platform overhangs and carries another set of rails, on which runs a travelling

frame which can run outwards to the extreme end of the upper platform. This traveller again carries a third set of rails placed transverse to the line of the breakwater, and upon these run a powerful hoisting crab. All the movements of the traveller and the crab and the hoisting of the latter are performed by a steam engine fixed on the after-end of the Titan, and the man in charge, by turning a handle or a wheel, can "lift up," "lower," "go to sea," "go home," "go north," "go south,"—six separate movements at the word of command of the foreman.

The crab can just come over the spot to which the locomotive has pushed the block upon its railway truck. It is there slung again, by the same lewises as served to lift it from the platform on which it was originally made, run out to sea, and lowered down on to the bed prepared for it by the divers. Now all that has to be done is to remove the lewises, so that another block may be placed upon it. This, in the case of the bottom blocks, is done by the divers, but in the case of the blocks above it is effected by the men above by means of an ingenious device of Mr. Thorowgood's, by which, with a sharp pull from above, the lewis is turned through its required angle, and then, being free, is drawn up by the Titan.

By the repetition of this process eleven thousand and twenty times, eleven thousand and twenty blocks had been set up to the 31st of January last, resulting in 6,912 feet of breakwater, rather more than one mile and a third. Abstract numbers convey little idea; so, for the sake of giving a fact worth recording, I feel justified in claiming on behalf of the Madras Harbour Works staff the construction of a greater length of breakwater than has ever before been accomplished in four years by two machines.

This brings our history down to a very recent date. The less we say about the future perhaps the better, except that

we have the same energetic and skilful staff at work, and, judging the future by the past, their task should be completed this year.

One result of the works I ought to notice, viz., the accumulation of sand to the southward of the harbour. That there would be such an accumulation was always anticipated, though the means did not exist of estimating the rate of growth. It was at one time assumed by many people to be a fatal objection to the construction of a harbour at Madras, but it is now evident that it will not affect the harbour for many years to come, and whenever it does so the engineer of that distant future will no doubt be competent to meet the evil. The plan shows four years' growth in the form of a triangle in the angle between the pier and the shore. Every year will add a strip, longer, deeper, and by consequence doubly narrower to the base of this triangle, till at last it will reach the turn of the pier, and then the pier must be extended; no great penalty to pay by anticipation for the benefit of the harbour for some generations to come.

During the progress of this work we have been, as usual, comforted from time to time by the predictions of the prophets of evil. Most of these predictions have already been falsified, and these may now be left to oblivion; but there are some which have yet to be brought to the test of experience, and one at least to which I ought to allude. It is said, "You have been fortunate hitherto in your weather; wait till you get a regular first-class cyclone." Some of the prophets add a confident prediction that our works will then be utterly destroyed.

Now, I am by no means prepared to meet this assertion with an equally confident one that the works will receive no damage. I am content to wait the advent of a first-class cyclone before I form my own judgment. But what I do say is this, that the experience of other places where damage

to sea works has occurred, does not show us the necessity of any precaution that has not been taken in these works. If the sea finds a weak place in the Madras works it will teach a lesson which I think will be as new to other engineers as to myself, and I have that confidence in our resources that I feel sure we shall profit by the lesson so far that we shall without much difficulty find the way to repair the damage and prevent its recurrence. At present I know not in what direction to anticipate danger. If I did, I would provide against it. As yet the sea has done nothing more than was anticipated, and it has not touched the essential features of our design. It would be presumptuous to say it will not do so. But while I abstain from confident assertions on my own side, I must deny that there is the slightest ground for confident assertion on the other side. It is not even certain—indeed there is great reason for doubting—whether the sea which accompanies a first-class cyclone is really as trying in its character as the seas propagated from distant cyclones which we have experienced. It is certain that the force of sea at any spot is not in proportion to the force of wind at that spot. Some of the heaviest seas are accompanied by very little wind, and there is no evidence to show that the converse is not true, namely, that the strongest winds are not accompanied by the heaviest seas. There are elements in the question which we do not yet understand. We can only wait and profit by the lesson when it comes.

W. PARKES.

IV.

DESCRIPTIVE REMARKS ON THE SEVEN
PAGODAS.

CHAPTER I.

GUIDE TO THE SEVEN PAGODAS.

MĀMALLAPURA, now more commonly called on the spot Māvalivaram, or "THE SEVEN PAGODAS," lies nearly 30 miles south of Madras on the strip of sand, about a mile wide, between the sea-shore and the East Coast Canal. The latter has been recently made along the hollow which appears to have been formerly an extensive creek or *backwater*, connected with the open sea probably at the mouth of the Pālār River, which rises in the eastern uplands of Mysore and, after flowing past Vellore, Arcot, and Conjeveram (Kāñci-puram) falls into the sea at *Sadras* (Saduraṅgapatna) a few miles south of Māvalivaram, which is supposed to have once been a flourishing seaport town.

That the place was once largely inhabited is shown by the whole plain being strewn with pieces of pottery, old coins, and other relics of a civilized population. Here and there are mounds of debris covered by the drift sand which is blown up from the beach by the sea-breezes in the Spring.

The most remarkable natural feature of the place however is the rock or rocky hill, nearly half a mile (700 yards) long from north to south and 250 yards wide from east to west,

which rises abruptly from the sandy plain in a solid mass of bare gneiss rock to a height of nearly 100 feet. The top and sides of this rocky hill or ridge are carved, scored or excavated in numerous places, and some of the many outlying fragments or detached boulders with which it is surrounded have been hewn into the shape of temples and antique structures which are noticed in the following pages.

Besides the monolithic shrines, the rock-hewn chambers and the sculptures, there are ruined remains of a few structural temples of ancient style, and a larger number of more modern temples and buildings, associated with the dwellings of the present villagers.

Of the antiquities to be mentioned the most peculiar and interesting from an architectural point of view are the monolithic temples or shrines, the principal group of which lies at a distance of a third of a mile (or 650 yards) south of the main rocks. There are five of them here, and it may be this number, combined with the two spires of the built temple on the sea-shore as seen from the sea, which has given rise to the Anglo-Indian name "Seven Pagodas."

A few other scattered clusters of rocks crop up here and there above the surface of the sand, and one of these near the sea-shore at Śāluvaṅkuppam, a couple of miles to the north of Māvalivaram, is well worth a visit to inspect the peculiar rock carvings, an excavation, and some inscriptions, which have been made there.

"SEVEN PAGODAS" may be best visited from Madras, whence it is a long night's journey distant, in a canal boat.

The principal objects at Māvalivaram may be seen in a single day, but it would require two or rather three days for a leisurely and close examination of all the objects of interest, including a visit to the carved rocks at Śāluvaṅkuppam.

A boat must be engaged accordingly and provisions taken for the whole time, as nothing of the kind is procurable

on the spot. To be comfortable a tent and servants should be sent in advance, but shelter from sun and rain can be had in some of the vacant *maṇḍapams* (pillared halls) or in the rock-hewn caves, but they are anything but clean or pleasant resting-places, and a small tent pitched under the trees on the sandy plain to the south of the big tank (Punḍarīka Pushkarīṇī), south-east of the village, would be far preferable.

The best time of year to visit the spot is probably November or December, just after the latter rains and whilst the north-east wind is blowing freshly. But any time of year will suit; and the sooner after the middle of November the better.

To ensure early arrival on the morning after departure from Madras the boat should be sent early in the afternoon a few miles down the canal as far as the road goes, and the tourist may then drive there and embark in the cool of the afternoon. Similarly a carriage should be sent to meet him there very early on the morning of his return to Madras.

If the visitor's time is very limited, I should recommend his taking the following course.

On mooring the boat at the usual landing-place, after some early breakfast, a messenger having been sent to the village for a guide and coolies if desired, take the footpath and make directly for the north end of the rocks distant nearly half a mile to the east. Here ascend the slope and examine the rock-cut façade with shrine cells, &c. (A, 21 and 22, see map.)¹

The other objects in this group (A), although close by, are not worth spending any time over: descend the rocks to the

¹ The letters prefixed indicate the principal object in each group, whilst the numbers refer to those entered on the Madras Survey Map, a reduced copy of which accompanies this paper.

MÁVALIVARAM OR THE SEVEN PAGODAS.

REDUCED FROM THE MADRAS REVENUE SURVEY.

EXPLANATION OF THE FIGURES ON THE MAP.

- | | |
|---|----------------------------------|
| 1. Figari Temple. | 28. Dharmaraja's Temple. |
| 2. Pidariamman Rathas. | 29. Draupadi's Bath. |
| 3. Valaiyan Kutjai Rathas. | 30. Unfinished Excavation. |
| 4. Seven Pidaris, one Jain idol & Lingam. | 31. Stone Couch. |
| 5. Shore Temple. | 32. Maheshamardini Mandapam. |
| 6. Mahishasura Rock. | 33. Unfinished Excavation. |
| 7. Chetty's Temple (ruin). | 34. Isvara Temple. |
| 8. Paddarkapushkaripit. | 35. Varahasvami (Vishnu) Temple. |
| 9. Mandapam. | 36. Lion. |
| 10. Do. | 37. Draupadi's Ratha. |
| 11. Dolotsava Mandapam. | 38. Sacred Bull (Nandi). |
| 12. Sthalasayanasvami (Vishnu) Temple. | 39. Arjuna's Ratha. |
| 13. Emburuman Temple. | 40. Elephant. |
| 14. Krishna Mandapam. | 41. Nakula and Sahadeva's Ratha. |
| 15. Unfinished Excavation. | 42. Bhima's Ratha. |
| 16. Arjuna's Penance. | 43. Dharmaraja's Ratha. |
| 17. Monkeys. | 44. Excavation. |
| 18. Isvara Temple. | 45. Arjuna's Penance. |
| 19. The Gopi's Churn. | 46. Unfinished Excavation. |
| 20. Excavation. | 47. Stone Choultry (ruin). |
| 21. Elephants, Monkey, and Peacock. | 48. Ramanaajaiyar's Mandapam. |
| 22. Krishna's Butter-ball. | 49. Stone Couch. |
| 23. Ganesa Temple. | 50. Kotikal Mandapam. |
| 24. Excavation. | 51. Unfinished Excavation. |
| 25. Lamp Niches. | 52. Excavation. |
| 26. Rayala Gopuram (unfinished). | 53. Gangaoda Mandapam. |
| | 54. Mukunda Nayanar Temple. |

SCALE 12 INCHES = 1 MILE.



TRANSFER BY T. THAGARAJOS AND LITHO BY R. J. BALDREY GOVT. LITHO. PRESS & WORKS 1921

path that runs along their east foot from north to south and inspect the objects as follows :—

- B (24). A handsome monolithic shrine with ridge roof and curved gable ends.
- C (25). A fine little façade and excavation with carved tableaux, situate a little way up the gully to the south-west of B. Return from C and regain the path at the east foot of the rocks in front of D (17).
- D (17). The great rock-cut *bas-relief* scene called Arjuna's Penance.
- E (16). An unfinished excavation adjoining D.
- F (15). A rock-cut pastoral scene, with a pillared hall built before it.
- G (48). A fine façade and excavation, high up in the rock, 100 yards south of F. The interior has been destroyed and this may be omitted if the time is wanting.
- H (45). A great rock-cut *bas-relief* scene like D (17), only more weatherworn. It lies off the path on the east face of the south-south-eastmost detached rock, 250 yards south of F (15).

Regaining the footpath where it issues from the defile between the main and the detached rocks, on the south-eastmost spur of the former, notice I (44).

- I (44). A plain neatly finished excavation.

Rounding the southern end of this spur, a path will be seen leading northwards up a long slope to J (32).

- J (32). An unfinished façade over a fine excavation with sculptured tableaux facing the east under the highest point of the rocks, on which is built a small stone temple now gutted and unroofed (K).

K (34). The mere shell of a built temple, covered with fine carvings outside. Much weatherworn. Interior destroyed. A good view of the place is obtained from this, the highest part of the rocks. If time is insufficient K (34) may be omitted.

After visiting K or J 32 at the south end of the great mass of the rocks, the group of monolithic shrines should be visited. For this purpose proceed by the track from the south extremity of the rocks for one-third of a mile over heavy sand to Q (36-43), the five monolithic *Rathas* for which the place is famous. There are four different models of antique buildings here, supposed to represent the great temples, monasteries, or other ecclesiastical buildings of the Buddhist period of Indian architecture. As some of these are perhaps the most ancient if not the only models known of the buildings they represent, some little time may well be spent in examining them closely and familiarizing oneself with their peculiarities; and after the walk over the sand it would seem a good opportunity to rest awhile and take breakfast or luncheon. A small ladder should be got from the village or from the nearest *toddy-drawers'* huts by which to ascend to the roofs of the monoliths (their most finished and interesting part), in order to examine the details more closely.

After having examined the group of monoliths (Q) thoroughly, several courses are open, and the choice must be made according to the time at the visitor's disposal. The principal objects remaining to be visited are R (6) and S (8), the stone-built temple and sculptured rocks on the sea-shore, and the sculptured rocks, excavation, and inscriptions, W, X and Y, at Śāluvaṅkuppam. Both of these can hardly be accomplished the same day as the objects about the main rocks unless a pony or horse is available. If it is thought preferable to visit the remains at Śāluvaṅkuppam, without a horse, the boat should have been sent about three-quarters of a mile

further down the canal, south from the original landing-place to a point opposite to, and within a quarter of a mile of, the *Ratha* monoliths, ready for the tourist to enter after examining them; and in this case he could now take breakfast or luncheon and rest in the boat whilst the boatmen track back northwards to a point opposite Śāluvaṅkuppam, nearly 3 miles distant, whence the objects there, W, X and Y, are about a mile off to the east and near the sea-shore.

If however this plan is not preferred, after finishing at Q, and the tide is not high, it would seem best to walk across the sand about 700 yards to the sea-shore and thence along the moist sand, enjoying the sea-breeze, for about 1,000 yards north-eastwards to S ($8\frac{1}{2}$).

S ($8\frac{1}{2}$). The small lion-sculptured rocks, and on again to R (6).

R (6). The shore temple, an interesting ruin, with two spires over rifled shrines and the remains of much fine carving. From the shore temple, a walk for a quarter of a mile to the west brings one to T.

T (13). The comparatively modern Vaishṇava temples, &c., which may be noticed in passing. If time permits a parting view may be taken of D (17) the great bas-relief, but it will not be lighted up so well now in the afternoon as it was in the morning. Any other points on the east face of the main rocks may also be revisited if desired; otherwise ascend the rocks behind the big modern temple (T) to O 27.

O (27). The foundation of the unfinished Rāyala Gopuram, on the top of the rocks; west of this will be found O 28.

O (28). The Simhāsana or lion-pillowed couch; and

N (29). Draupadi's Bath, 50 yards south of the last.

Time permitting other objects on the rocky

M (30). ridge may now be taken, such as M (30) an unfinished excavation ; also

P (50). Another unfinished excavation ; whence descend to

P (51 and 52). The two Kōnēri excavations at the west foot of the rocks. A walk for a quarter of a mile from P (51 and 52) to the west brings one to the Piḍārikulam quarry rocks, where there are several unfinished *Ratha* monoliths,

Z (2 and 3), and to the south of these lesser rocks a third Z (4).

Monolithic *Rathas*, all of them generally resembling the other *Rathas*, but each differing from the other in detail.

Close to the landing place is

Z (1). An ordinary village goddess', Piḍāri-amman, temple.

In the foregoing round nothing of importance has been omitted ; for I cannot think that such as A 18, the carved stone representing a couple of monkeys and suckling, or U (15), the little village goddess images, are worth going out of one's way to visit if pressed for time.

V (54). The small ruined stone temple, standing isolated in the sand waste half a mile north of the village, could not be visited in the allotted time, a single day.

If two days are available for the purpose, the following would seem to be a convenient leisurely way of taking all the antique objects of interest at the Seven Pagodas. Arriving by canal boat early one morning, whilst the boat is being moored and unloaded, and a guide and coolies sent for, just notice the objects near the landing-place, Nos. 1, 2, 3, and perhaps 4 also ; then take the footpath to the village and make for the north end of the main rocks where are many

objects comprised in group A. See lists and map accompanying.

Next take the various objects on the east face of the main rocks from north to south, alphabetically as marked in the list showing the new order proposed, indicated by the letters B, C, D, &c.

On reaching the extreme south or south-west end of the main rocks, turn northwards and visit in order all the objects on the top and west side of the ridge, ending with the excavations marked P 51 and 52.

This should prove a good forenoon's work.

In the afternoon of the first day visit Q (36-43) the group of *Ratha* monoliths, &c., at the south end thoroughly, and return to camp at the village, or to the boat for the night if to the latter, the group Z may be examined in the order 4, 3, 2, 1.

On the morning of the second day go to the shore temple and the groups of sculptured rocks near it, R and S, after which take T and U when returning westward to the village. A second visit may now be paid to the objects best worth seeing or to any that were insufficiently examined on the first day.

The afternoon of the second day may be spent in going to Śaluvāṅkuppam. Whilst the visitor walks thither to see W, X and Y, taking V No. 54 a small ruined temple in the sand waste half a mile north of the village on the way, the boat may be sent northwards along the canal until opposite to Śaluvāṅkuppam, there to await the visitor's return.

In this way THE SEVEN PAGODAS may be easily visited from Madras, starting on Friday afternoon and returning on Monday morning. With a comfortable boat to dine and sleep in, a tent is unnecessary, the heat of the day being passed in one or other of the many maṇḍapams or caves, or under the trees.

The following brief description of each object will afford most of the information which a visitor will usually care to have, and will point out some of the architectural and other peculiarities most worth noticing.

DESCRIPTION.

1. **PIḍĀRI AMMAN** (a village goddess) **TEMPLE**.—Within 200 yards of the canal landing-place, on the footpath to the village. This is an ordinary looking village shrine with a flat roof, having a wide verandah or portico open to the east. There is a *balipīṭham* or sacrificial altar in front, with a lion *couchant*, and a *lingam*.

2. **PIḍĀRI-KUḷAM QUARRY RATHA** (first or north).—A monolithic shrine nearly 100 yards south-south-west from No. 1, faces the east; lowest story only blocked out. Pyramidal roof of two domical cell-bearing terraces, capped by a tallish octagonal dome, all much in the style of the other monoliths, but has no pillars or pilasters completed. It has a good deal of ornamentation on the roof, and much resembles No. 39, Nakula's *Ratha*.

3. **PIḍĀRI-KUḷAM QUARRY RATHA** (second or south).—This is a small monolithic shrine somewhat similar to, and only a few yards south-south-west from, No. 2 and facing the north, but the interior has not been excavated. It has domical cell ornaments on the lower terrace of the roof only. The dome is quadrangular. The pilasters on the wall are more nearly finished, and resemble those on No. 37, Draupadī's *Ratha*.

4. **VALAIYAṅKUṭṭAI RATHA**.—About 160 yards south of Nos. 2 and 3, at the south end of this group of rocks and immediately west of the Valaiyaṅkuṭṭai, a small pool, stands the third monolithic shrine. The roof and walls are more elaborate and slightly more finished than those of Nos. 2 and 3 which it somewhat resembles. It has two terraces of domical cell ornaments

surmounted by a squat quadrangular dome. It also has projecting canopied panels or niches under the horse-shoe dormers of the prominent cornices.

20. THE GOPĪS', OR DRAUPADĪ'S CHURN.—Going eastwards along the footpath towards the village of Māvalivaram for some 500 yards, the north end of the main group of rocks is reached; ascending this to the top of the slope, No. 20, the "Churn," is seen near the west face of one of the northernmost of the scarped rocks. It is a plain cylindrical vessel $8\frac{1}{2}$ feet in diameter and 4 feet deep hollowed out of a boulder stone.

21. KAPĀLĪŚVARA OR NANDAGOPĀLPĀLAIYAM SCULPTURED FAÇADE WITH THREE SHRINE CELLS AND DURGĀ TRAMPLING MAHISHĀSURA.—This is a neat little triple-celled shrine façade, the ornamentation of which is nearly finished and the work in good preservation. It has no verandah or covered portico, but merely a prominent cornice overhanging the three doorways with their flanking *dvārapāl* warders.

The vase-finials of the domical cell ornaments and the erect flat spikes or horns over the horse-shoe facets of the cornice and roofs, and over the gable ends of the oblong cells, are all standing nearly perfect, and lend a highly ornamental finish to the whole.

The adjoining effigy of Durgā eight-handed trampling on the head of a buffalo is carved on the face of the paneled rock.

21½. BHĪMA'S HEARTH, with steps to the summit, lies a few yards to the south of Nos. 20 and 21, through a cleft in the rocks forming a natural cave or chamber, which has been utilized by the stone-masons as a forge for repairing their tools, an old anchor forming the anvil.

22. Elephants, a peacock and monkey are sculptured in *bas-relief* on the east face of the rock, the west face of which has No. 21. The elephants, as usual here, are well done, but the meaning of the group is not obvious.

18. COUPLE OF MONKEYS WITH SUCKLING.—This is a small group, about life-size, carved out of a single stone, lying on the plain at the north-north-west, near where the footpath from the landing place meets the western road or street of the village.

19. **ĪŚVARA TEMPLE.**—A very plain common looking building near No. 18, about half a mile east from the canal landing-place, where the footpath meets the west street of the village.—This is a plain rectangular village shrine, built of dressed stone, containing a *lingam*, emblem of Śiva. It has been recently re-roofed and repaired, and looks quite modern. Kāvali Lakshmayya states (para. 1, p. 230) that Lord Clive took away the bull (Nandī) from its front.

23. **THE BUTTER-BALL OF KRISHNA OR DRAUPADĪ.**—Taking the path at No. 18 (The Monkeys) that leads to the south along the east face of the main group of rocks, at about 80 yards we pass the Butter-ball, which is merely a natural rounded boulder 8 or 9 yards in diameter poised on the eastern slope of the rocks.

24. **KĀMARĀJA'S TEMPLE OF ŚIVA**, otherwise called Arjuna's Ratha, and also latterly styled the Gaṇeśa temple from the image of Gaṇeśa (the Tamil Pillaiyār) recently installed in it.—This shrine stands on the rise at the north end of the eastern ridge of the rocks, 120 yards south of the Butter-ball (No. 23) and about 200 yards from the north end of the rocks. It is an oblong monolithic shrine, highly ornamented above the basement, and surmounted by a waggon-roof with curved gable ends and side dormers, above two corniced floors or terraces of domical cell ornaments. It is excavated below to form a verandah portico open to the west, and an internal shrine cell, which now contains an image of Gaṇeśa recently enshrined in place of the *lingam* emblem which once stood here.

There is an ancient Sanskrit inscription on the south wall of the verandah facing west, in the Pallava character of the sixth century, a little later than the inscriptions on the southernmost (Dharmarāja's) Ratha, No. 43.

This inscription is in praise of Śiva, in whose honor Kāmarāja (*Lord of the Pallavas*) had this temple made. Kāmarāja's temple is somewhat like the great waggon-roofed monolithic shrine of Bhīma (No. 42), and the ornaments are in the same style, which is generally that of all the monoliths and excavations here.

The two pillars and pilasters of the portico have their lower

half carved to represent a griffin or lion, but want the tabular *abacus* between capital and bracket.

25. VARĀHASVĀMĪ (Vishṇu) MAṆḌAPA, OR ULAGAḤANDA.—From Kāmarāja's or the Gaṇeśa temple, by going 40 yards along the path that leads up to the south-south-west by a defile in the rocks No. 25 is reached. This is a handsome little excavation facing west-north-west, and consisting of a portico or verandah 22 feet long, 11 feet deep, and $10\frac{1}{2}$ feet high, with a shrine-cell, now vacant, behind two octagonal lion-based pillars and two square pilasters, under a prominent cornice surmounted by a neatly finished row of oblong cell ornaments. The ends and back wall of the portico are sculptured in bas-relief tableaux.

25A. The first, that on the north end wall, represents the Varāha Avatāra: Vishṇu, boar-headed, standing, with the nude figure of a woman seated on his right knee, raised by having placed the foot on the head of a nāga (wearing a five-headed serpent hood) rising out of a bed or pool of (?) lotuses.

25B. The next scene represents the Gaja Lakshmī.—Lakshmī on her lotus throne, with four nude female attendants bearing water-pots which two elephants empty over her head.

25C. The corresponding tableau on the back wall south of the shrine cell represents a goddess (four-armed) standing on a stool under an umbrella with *quasi*-lion and unicorn supporters, and attended by dwarfish guards and human (?) worshippers.

25D. The panel on the south end wall of the portico contains a representation of the Vāmana (or *dwarf*) avatāra of Vishṇu, Trivikrama (the “*three stepper*”) or Ulagalandōn = “*World measurer*.” The god is eight-armed, displaying his emblems and weapons, standing on his right foot, with the left stretched up to heaven by an impossible distortion.

The roof of this excavation is painted, and the pillars have the fine square tabular abacus between capital and bracket, noted as wanting in No. 24.

26. On the west face of some of the highest rocks to the south of the Varāhasvāmī Maṇḍapa (No. 25) a number of little niches may be seen in rows, as if intended for lamps to be placed in

during a festival illumination. The same are to be seen on the west side of the Idaiyan Paḍal pillar rock at Sāluvaṅkuppam, No. 56.

17½. Returning now from No. 25 and passing round the north end of this eastern ridge of the rocks by Kāmarāja's temple, No. 24, and down to the pathway again, to resume our southward progress, at about 40 or 50 yards from No. 24 we come to a flight of steps cut in the rock, and close by a steep sloping slide, next to which comes the great bas-relief.

17. ARJUNA'S PENANCE.—The precipitous east face of the rock for about 90 feet in length and 35 feet in height has been sculptured to represent the story of the *Tapas* or penance of Arjuna, so at least they say. The rock is divided by a deep natural cleft in the middle, in the centre of which a great nāga with a seven-fold serpent hood, and serpentine below the waist, was placed. Immediately below him the Nāgini, his consort, with a triple serpent hood, and below her again in the bottom of the cleft a simple cobra or nāga snake erect with extended hood.

A multitude of human and animal figures celestial and terrestrial have been carved, nearly all turning towards the central cleft, which may very likely have contained some other and more important centre of attraction than the nāga figures which alone remain.

The so-named Arjuna stands on one leg with both hands raised aloft in the attitude of meritorious penance; whilst by him stands a huge man, or god, with four arms, probably Śiva, according his approval. (?)

A shrine in the style of the adjacent monoliths is represented below Arjuna, with an image standing within the cell, stated to be that of Kṛishṇasvāmī, in front of which a contemplative sage is sitting carved entire and very well done.

There is another version of the penance on a similar cleft rock No. 45, 300 yards further south.

16. THE PAÑCA PĀṆDAVA CAVE (open to east).—Adjoining the south end of the great bas-relief a considerable excavation has been begun, nearly 50 feet wide (north—south), 40 feet deep (east—west), and 10 feet high. It is quite unfinished. The six

front pillars and two pilasters are lion-based, and the brackets were to be unusually ornamented by semi-rampant lions with human riders above a fine tabular abacus.

The finished parts of the crowning row of domical cell ornaments are worthy of notice as showing the use of the curved projecting (canopy) block in the horse-shoe roof dormers, and the projecting panel shaft which they surmounted.

The shrine cell which occupies the centre of this maṇḍapa, and the back parts are merely blocked out.

27. THE RĀYALĀ GŌPURAM, an unfinished modern looking gateway with its four megalithic posts might be visited here if desired.

15. THE KṚISHṆA MAṆḌAPA; Pillared hall and Rock-cut bas-relief.—On leaving the Pañca Pāṇḍava Cave No. 16 the path continues southward between the rocks and the back (west) wall of the Sthalaśayanasvāmī (Vishṇu) temple for 40 yards to the KṚishṇa Maṇḍapa, which is near its south-west corner, facing east. This is a structural maṇḍapa or pillared and covered court, built of hewn stones in front of the rock which has been sculptured to represent a great pastoral scene.

Two princes with their wives and attendants appear to have taken shelter in the cave-dwelling of the herds-folk, several of whom (see Carr, Pl. II) wear a head-dress very like some of the country-folk depicted in Fergusson's *Tree and Serpent Worship*, where they also wear a striped garment. Some of these have a very Hindustani look about them.

The front row of four pillars have lion-bases, but the upper part of their shafts and brackets are very modern looking.

48. RĀMĀNUJA MAṆḌAPA: excavation.—Proceeding about 100 yards further to the south from the KṚishṇa Maṇḍapa the path reaches a spot whence by turning to the right or west, and ascending the slope up to the steep scarp of rock near the summit of the ridge, the Rāmānuja Maṇḍapa (excavation) may now be visited best.

This must have been a very pretty and well finished excavation originally, consisting of a portico or verandah under a row of oblong cell-ornaments (like No. 25), with a projecting cornice, and behind two lion-based octagon pillars and two square lion

pilasters; originally the back wall was excavated for three shrine cells under an interior prominent cornice, but these have been completely demolished, and the centre part cut out so as to form but one irregular chamber. The back of the central shrine cell and the ends of the portico or verandah had sculptured tableaux on them, but all three have been carefully but roughly *dished*, as also have the dvārapāl warders that originally flanked the excavation. There is an inscription on the floor which is said to be identical in matter with part of the older Śaiva inscriptions; but the conch and cakra cut on the end walls of the terrace in front of the excavation seem to show that Vaishṇavas must have destroyed the old Śaiva designs, and apparently have wished to convert the cave to their own uses. An open colonnade of six plain rough-hewn squared pillars, 12 feet high and about 8 feet apart, has been intended to enclose an outer verandah or portico, as has been done in the case of the Kṛishṇa Maṇḍapa (No. 15) and the Varāhasvāmi temple (No. 35), but the architraves alone have been added to the piers, and no roof has been even begun.

Rāmānujācārya, the great Vaishṇava reformer after whom this work is now called, is said to have flourished in the eleventh century.

49. **STONE COUCH.**—This is a plain pillowed bed to the left front of No. 48 and below; it somewhat resembles No. 31 in shape and position, but is not ornamented like No. 28, the Simhāsana or Dharmarāja's throne.

47. **THE VELUGŌṬI SĪGAMA NĀYUḌU MAṆḌAPA.**—This is a common roughly built plain maṇḍapa, with a flat roof and open to the south. It is on the ridge of the rocks just above the Rāmānuja Maṇḍapa (No. 48), and is hardly worth a visit unless it be in search of a foil to the rest. One Sīgama Nāyudū, of the Velugōṭivāru race, is dated about the year 1600 A.D.

46. An excavation merely begun, may be seen close to the path, west side, 160 yards south of No. 48.

45. **ARJUNA'S PENANCE** (2nd Edition).—Descending again to the path below No. 48, the next work of art to visit (No. 45) lies about 160 yards to the south-south-east.

Leaving the path to the southward, which leads through a gap in the rocks, and passing to the eastward of the outlying blocks, the large sculptured surface will be found on the east face of a couple of the largest. The general idea in this great bas-relief tableau is somewhat the same as in the other, No. 17, but the execution is very different, and being more exposed is very much more weather-worn.

The scene is divided in halves (as in No. 17) by a great chasm or cleft in the rock in which there are signs of separate carved stones having been once fixed, though now gone; but the remains of an artificial bridge or canopy near the top of the cleft may still be seen. The excavation of the sand at the foot of the rock might probably reveal the Nāga or other figures that once occupied (here as in No. 17) the post of honour; for here, as there, all the figures except Arjuna look towards the centre. There are many similarities and differences in the two scenes as represented that are well worth study. Arjuna, or the performer of the penance, is represented in a slightly different attitude, not only standing on one leg with his hands joined high above his head, but his face also is turned fixedly up, which is another form of penance.

Remains of a coating of plaster may be seen still adhering to the sculptured part of the rock.

46. The mere commencement of an excavation.—This lies in the defile west of the path at the back of the rocks on which the second version of the Penance (No. 45) is carved. It is interesting as showing how the excavations were commenced. It might have been taken before No. 45.

44. DHARMARĀJA'S MAṆḌAPA.—A little way south after passing No. 46, the path emerges from between the rocks and at a score or two of yards distance arrives opposite a plain, neat, well finished, little excavation, situated at a good elevation up amongst the rocks at the south-south-eastmost end of the group and facing eastwards. This is an interesting work of art though exceedingly plain, as it is completed, well finished, and is not in the same style as that of most of the other excavations and

sculptures. It consists of a chamber 21 feet 6 inches by 12 feet 2 inches, divided by four plain piers into two aisles or verandahs of three bays each, with three small shrine cells at the back, the centre of which has a vacant hole in its floor intended for a lingam or image. It stands forward a little in advance of the two side cells, and was flanked by a dvārapāl warder sculptured in a narrow panel on each side of the doorway, which however have both been destroyed. The back wall has been carved to represent the outer wall of a temple or shrine, with plinth-moulding, pilasters, and panels, &c., under a fine prominent cornice.

The front, outside, is quite plain and unadorned. The two piers are about 2 feet square and 7 feet ($= 3\frac{1}{2}$ diameters) high below the brackets, which are quite plain. One-third of the shaft, a little above the centre, is made octagonal by cutting off the corners. Although the style of this is different from that of the other works here, it resembles precisely that of many excavations in the neighbouring district, as for instance at Dūsi Māmaṇḍūr 6 miles south of Conjeveram, and at Pañca Pāṇḍavar Malai 6 miles south-west of old Arcot, and doubtless at other places in the North and South Arcot and the Chēṅgalpaṭ Districts adjacent.

33. The commencement of a monolithic shrine or *Ratha*.—This is a rock of the ridge just to the north of Dharmarāja's Maṇḍapa (No. 44).

31. MAHISHĀSURA'S COUCH (compare No. 28 and No. 49).—This is a plain couch-shaped throne to the left front of No. 32 to be named next.

From the path near No. 44, this is reached by passing round the south end of the eastern ridge of the rocks to the 'right about,' and ascending the slope between the two parallel ridges for 60 or 70 yards towards the north; near the top of the slope the couch No. 31 lies directly in front, No. 33 to the right hand, and No. 32 to the left or west.

32. THE MAHISHA MARDINĪ MAṆḌAPA, OR YAMAPURĪ.—This excavation is in the east face of the highest part of the rocks, and immediately below the summit on which the conspicuous shell of

the Olakkanneśvara temple (No. 34) stands. It is one of the principal excavations of the locality owing to its three fine bas-relief sculptures, but it is unfinished.

It consists of a chamber 33 feet by 17 feet, and 13 feet high, behind a row of (originally four) tall, slender, 16-sided columns of the prevailing style, having three shrine cells at the back, the centre of which has in front of it a handsome canopy supported by two fine lion-based columns, rising from the angles of a raised basement or *stylobate*, standing out in the middle of the chamber.

The panel at the back of the principal cell (which probably once contained a lingam, represents Śiva (four-armed) with Pārvatī and child, seated on a dwarf-legged couch or throne, having the bull Nandī lying down for a common footstool. Brahmā and Viṣṇu attend in the background, and a royal umbrella covers Pārvatī.

This tableau is the same as those in Dharmarāja's Ratha (No. 43), in the shore temple (No. 6), in the Mukunda Nāyanār No. 54, and in the Atiraṇacāṇḍeśvara Maṇḍapa at Śāluvaṅkupam, where there is a dedicatory inscription of perhaps the eighth or ninth century A.D., in which is the invocation "May Śiva, the beloved, accompanied by the daughter (Pārvatī) of the snowy mountain, by Kārtikeya, and their suite of deities, be present in it for ever."

On the panel at the south end of the chamber Viṣṇu Nārāyaṇa is represented lying asleep on the folds and under the five-headed Nāga hood of Ādiśeṣha. Viṣṇu here has apparently only two arms, whereas in the shore temple (No. 6) he is represented with four arms.

In the opposite panel at the north end of the chamber Durgā, eight-armed, astride her lion steed, is represented attacking Mahishāsurā, the buffalo-headed giant.

The central female warrior below is fighting with a broad knife or short sword, curved like a *Gurkha* knife or *kukari* (?).

The façade above this excavation is only roughly blocked out.

34. THE OLAKKANNEŚVARA TEMPLE (ruined).—This imposing relic is only the shell or outer (stone) casing of a handsome structural temple which occupies the highest part of the rocks. It is

immediately above No. 32, the Yamapurī excavation, and may be reached by scrambling up the rocks to the north of the latter. Outside it is very much weather-worn, and the sculptured panels and pilasters, &c., especially those on the east or seaward side, are almost beyond recognition, and the whole structure looks as if it must soon fall down.

Its interior appears to have been lined with brick masonry and concrete, of which however it has been completely gutted, and the liṅgam and debris have been thrown over the precipice on the west side.

In style it bears a resemblance to the other structural temples of the vicinity (No. 6, No. 8, and No. 54), and somewhat also to No. 4, the Valaiyaṅkuṭṭai Monolithic Ratha.

35. At the extreme south-south-west foot of the rocks, facing the west, is the Varāhasvāmī (Vishṇu) Temple, *alias* "The Cave." This is an enclosed pillared hall or maṇḍapa built out in front of a rock-cut excavation with carved façade in the prevalent style here.

The outer built chamber measures 32 feet by 17 feet 6 inches, and 10 feet high, with eight stone pillars like those of No. 15, the Kṛishṇa Maṇḍapa. The main or inner chamber, that is, the original rock-hewn maṇḍapa, is about 32 feet long, 15 feet wide and 10 feet 6 inches high, having four lion-based octagonal piers in front and two others without lion-bases. At the back there is an innermost shrine cell, 8 feet 7 inches by 6 feet 7 inches and 8 feet 9 inches high.

A. On the back wall of this shrine there is a bas-relief representation of the Varāhasvāmī Avatāra, boar-headed Vishṇu, four-armed, supporting Lakshmī (? Pṛithivī, the goddess earth) upon his right thigh, raised by placing the right foot on the head of Adīśeṣha, the Nāga (serpent-) hooded being. This sculpture is almost identical with 25A already described (see Carr, Pl. V).

The main chamber has eight sculptured tableaux : two on each side of the shrine in the back wall, and two at each end.

B. West compartment of north end wall, a four-armed figure (?) standing, perhaps Śrī Rāma. (Carr, p. 211.)

C. East compartment of north end, a man seated between a couple of attendants, perhaps intended for the Ālvār named Bhūta. (Carr, p. 133.)

D. North end of east wall. The Gaja Lakshmī, the same as 25B. (Carr, pl. VIII.)

E. A triple-niche compartment on east wall, next north of the shrine.

F. Corresponding triple-niche compartment of east wall, next south of the shrine.

The centre niche of these two compartments (E and F) contains the figure of a four-armed god or goddess standing on a pedestal between two half-kneeling devotees, and the left upper hand seems to bear the *caṅkha* emblem.

The four narrow niches, one on each side of these two centre niches, contain single tall human figures standing.

G. The south end compartment of east or back wall contains an eight-armed goddess (? Durgā) standing on a buffalo's head, with two half-kneeling devotees (?), two-armed attendants, and two (?) celestials floating in mid air. The head of a lion and of an ox are also to be seen.

H. The east compartment of south end wall contains the figures of a tall capped man with two ladies, supposed to be King Hariśekhara and his two wives. (Carr, p. 211.)

K. The westmost niche of the south end wall contains a four-armed standing figure of a god with three heads. In this case the left lower hand is raised breast high: in 35B, C, E and F the right lower hand of the principal figure is raised in a similar way.

Service is still performed in this temple, and the door is kept locked to prevent the entrance of strangers. Between the two offering altars in the middle of the outer enclosure or courtyard the figure of a snake's head has been set up.

In a niche cut in the rock on the north side of this temple there is a long inscription in old or mediæval Tamil, recording two grants of land for the Ālvār in this temple (?), the date of which appears

to have been satisfactorily proved to be 1073 A.D. (See Carr, p. 138.)

The inscription refers to the temple of Mahāvarāha Viṣṇu as of a well known and already endowed temple, which shows it to have been older than this, and part of the inscription having been covered up by the newer buildings added, proves them to be of a much later date.

30. UNFINISHED MAṆḌAPA (excavation).—A four-pillared excavation with niches begun. This is some little distance north of the Varāhasvāmī temple No. 35, and amidst the rocks west of the Velugōṭi Śiṅgama Nāyudu Maṇḍapa No. 47.

29. DRAUPADĪ'S BATH (or Turmeric vat).—A mere shapeless excavation for a water tank, on the south end of a central ridge of the rock, north of No. 30, and about 100 yards south-west from the great foundation of the Rāyala Gōpuram No. 27.

28. DHARMARĀJA'S SIMHĀSANA, OR LION THRONE.—This is on the north side of the rock, on the south end of which is Draupadī's bath, 50 or 60 yards apart, and about 90 or 100 yards west of the Rāyala Gōpuram No. 27.

The five burnt-offering pits of the Pañca Pāṇḍavas and their treasure pack are said to be about here ; the rocks being called the '*Monkeys' rocks*.'

27. THE RĀYALA GŌPURAM.—The foundations built up to floor-level of dressed stone masonry, with an ornamental plinth moulding for the basement. Four monolithic pillars have been set up for the posts of the gateway, 3 feet wide, 2 feet thick, and 16 feet high.

52. KŌNĒRI (Paḷlam) MAṆḌAPA (south) excavation.—From Dharmarāja's throne (No. 28), by going on to the north and taking the first opportunity to descend from the rocks to the plain at their west foot, this unfinished excavation will be found, facing the west-north-west.

The Kōnēri Maṇḍapa (south) is a chamber 36 feet 6 inches long or wide (north—south), 16 feet deep, and nearly 10 feet high, having eight polygonal piers 7 or 8 diameters high, arranged in two rows of four each, dividing the chamber into an outer and inner verandah of five bays, backed by five cells each of which

once contained a liṅgam probably, though now vacant. The panels on each side of the five cell doorways contain a dvārapāl warder, all much in the prevalent style here. The end walls of the terrace outside the cave have the *caṅkha* and *cakra* carved on them (just as in the Rāmānuja Maṇḍapa No. 48), although the liṅgam-sockets look as if the cave had been intended for the worship of Śiva.

51. KŌNĒRI MAṆḌAPA (north) excavation; unfinished.—This is alongside No. 52, and consists of a single verandah or portico 36 feet long north—south, 10 feet deep, and 10 feet high, in five bays, with four lion-based pillars, and has a single shrine cell in the centre of the back wall which is now vacant. A word or two of inscription is cut on the floor of the cell or in front of its entrance.

50. THE KŌṬIKAL MAṆḌAPA (excavation).—Leaving No. 51 and ascending the rocks, a walk of 150 yards or so to the north-east brings one to the Kōṭikal Maṇḍapa, which is some 50 or 60 yards south-west from the Gopī's churn (No. 20). It consists of a chamber 22 feet long or wide north—south, 9 feet 6 inches deep, and 8 feet high, behind a couple of plain square pillars. There is a shrine cell in the centre of the back wall, with a sculptured figure in a niche panel on each side of the doorway.

The foregoing completes the circuit of the main group of the rocks.

THE FIVE MONOLITHIC RATHAS, THE LION, BULL AND ELEPHANT.—A walk of half a mile across the sandy plain to the south of No. 44 brings one to the main group of the monolithic shrines, five in number, besides the lion, bull and elephant monoliths, which are fully life-size or larger.

Four of the monolith shrines are in a row or line north and south, all opening to the west, away from the sea-breeze; the fifth shrine is placed a little way apart to the west, across the street as it were, and it opens and faces to the south.

36. LION MONOLITH.—This figure stands at the north end of the row facing north, with head erect and larger than life. It is much more life-like than the modern type of sculptured lion, but is still conventional. The mane is represented in regular rows of

large flat curls, of which there are three between the jaw and the shoulder.

37. DRAUPADĪ'S RATHA, OR THE GODDESS VIMĀNA ; finished.—This is the northernmost of the four monolithic shrines. It seems to represent a cubical cell built of timber and plaster, under a quadrangular curvilinear thatch-shaped roof. Except the armed dwarfs and the two worshippers, or half-kneeling attendants sculptured on the back wall in the shrine cell, all the figures are females. The work is finished or very nearly so, and the scroll patterns carved on the walls and roof are uncommonly florid and good. Similar scrolls are to be seen on the Piḍārikulam Ratha No. 3, and also on the Olakkannēśvara temple No. 34 and above the bas-relief of Durgā No. 21.

38. THE COLOSSAL BULL, Nandī.—This figure lies to the east of the row, facing the space between No. 37 and No. 39, the two northern shrines. Being nearly buried in the sand, nothing but the head is to be seen, which is 4 feet long, the horns being 3 feet 3 inches apart at the roots. The presence of the bull here, and in the structural temples (No. 6, &c.), though rare, shows that at one time the bull held a position of some consideration, at variance with its present dethronement at the Shore temple.

39. NAKULA'S (or Arjuna's) RATHA ; unfinished inside.—This is the second monolithic shrine in the row from the north end. It is a square three-storeyed shrine with an octagonal dome top. In design it is much the same as No. 2, that at the Piḍārikulam quarry, nearest to the landing-place.

40. THE ELEPHANT.—This monolith stands in the street between Nos. 39 and 41, back to back with the lion monolith No. 36, and facing southward, almost abreast of No. 41, and opposite the interval between Nos. 39 and 42. Like the elephants in Hindu sculpture generally, and in Nos. 17, 22 and 45, this is more true to nature than most of the other animals portrayed.

41. SAHADEVA'S OR THE APSIDAL RATHA ; unfinished.—This monolith stands on the west side of the street or row formed by the other four Ratha shrines, and opposite the interval between Nos. 39 and 42. It is a very interesting specimen, as almost the

only specimen remaining of an apsidal or round-ended temple ; the only other known to the writer is the Dharmēśvara temple at Maṇimaṅgalam, 20 miles south-west from Madras, but others may probably be found along the route of the pilgrims from the north going to Rāmeśvarām if sought for.

It is a three-storeyed shrine with a projecting lion-pillared portico in front of the shrine cell, opening to the south ; the only instance of a southward aspect noticed here.

The vaulted roof is one-half of a spheroidal dome, at the north end, blended with a waggon-roof having its façade under a semicircular gable to the south. In other respects this is much in the style of the rest of the monolithic shrines (Nos. 2, 3, 24, 39, 42 and 43).

42. BHĪMA'S RATHA, the great waggon-roofed monolith ; unfinished.—Returning to the row of the four monoliths, this is the third from the north, and next to the southernmost.

It is split in two, and some large pieces have fallen off from the angles, but enough remains to show that the design was grand, simple, and yet highly ornamental.

It is rectangular in plan, 42 feet long north—south, and 25 feet in width and height, and only two storeys high, with a single corniced terrace furnished with a continuous range of the domical cell and corridor ornament. The north and south façades under the curved gable ends much resemble those of Kāmarāja's temple (No. 24) and that of the apsidal Ratha adjacent.

43. DHARMARĀJA'S RATHA.—This is the southernmost in the line of the four monoliths and also of the entire group.

It is a four-storied, square, pyramidal-roofed shrine, with a double-storeyed portico projection on the west resting on four lion-based piers.

The second and third floors over the portico have shrine niches, in the upper one of which is the tableau of Śiva and Pārvatī with the child Subrahmanya and “ their suite of deities.”

Nearly all the panels, some two dozen in number, contain mythological figures or groups in them, sculptured in bas-relief, over about a dozen of which some descriptive epithets or words have been engraved, according to Dr. Burnell in characters of

the fifth or sixth century A.D., of the Pallava or E. Cera writing, and rather older generally than that of Kāmarāja's inscription in No. 24.

In design it is not unlike Nos. 2, 3 and 39, but is larger (9 yards square and 11 yards high) and more finished, and therefore more important, and very interesting as the prototype of the South Indian or Dravidian style of temple architecture.

The double flight of steps on the first floor terrace for ascending to the second floor or upper terrace is worth noting.

Having now examined the southernmost group of monoliths (Nos. 36-43), the group of objects near the shore remains to be visited (Nos. 6, 7 and 8).

8. The Chetty's temple (ruined) is within three-quarters of a mile to the north-east, whether one takes the shortest but tedious way across the sand direct, or by going eastward nearly one-third of a mile to the sea-side and then on the moistened sand along the beach, or by going back (northward) along the path to the south-south-east end of the rocks and then striking eastward for $\frac{1}{2}$ a mile across the sand to No. 8.

9. As our camp was in the tope of trees 200 yards east of No. 45 (a little south of No. 9, the fine masonry lined tank called Puṇḍarīka-pushkarinī), the latter was preferred.

8. THE CHETTY'S TEMPLE (ruined).—This was evidently a small structural temple built of large stones, perhaps resembling Nos. 34, 6 and 54. It lies from 350 to 400 yards eastward from No. 9 the big masonry tank, on a slight mound two or three score yards from the sea. It is a complete ruin, and the stones were so weather-worn that, with no time to spare, little or nothing could be made out of them.

8 $\frac{1}{2}$. THE LION ROCKS on the sea-shore; (much weather-worn).—This group of sculptured rocks lies 60 or 70 yards south-south-east of No. 8, and is interesting as resembling the similar sculptured rocks at Śāluvaṅkuppam. They consist of a small lion couchant and two other rocks, one carved into griffins' heads encircling a niche with many figures about it, and on the opposite side a bare-backed horse, and an elephant's head bearing a little

niche (as at Śāluvaṅkuppam); and the other carved into a single griffin's mouth and jaws encircling another little niche.

The lion in this locality generally performs the office of guard or protector, performed in other places by the friendly Nāga.

6. THE SHORE TEMPLE.—This structural temple is from 250 to 300 yards north-north east from the Chetty's temple (No. 8) and from the sculptured rocks on the shore near it. It stands on a slight headland of natural rocks, just half a mile east from the east foot of the main group of rocks near No. 15, and consists of a larger stone-built shrine of Śiva under a gracefully tall spire, capped by an octagonal dome and finial, and surrounded by a high, solid, and ornamental screen wall about 40 feet square built of large stones.

The shrine cell doorway and the entrance in the screen wall are directly to the east, immediately over the steps leading down to the rocks on which the sea is constantly breaking.

At the back (west) of the screen wall there is a second and smaller shrine under a lower spire, opening to the west, but without any enclosing wall now.

Both these shrines contain the tableau of Śiva, Pārvatī, Subrahmaṇya, and their suite of deities; but in the smaller shrine there is no *liṅgam* remaining. Several lions adorn the terraces of these spires, and a single bull (Nandī) is in position over the entrance to the smaller shrine. A small flat-roofed cell or chamber has also been built out from the back (west) of the screen wall and alongside the smaller Vimāna or spired shrine, containing the image of Viṣṇu (Nārāyaṇa) lying at full length, with head to south, but apparently without the Nāga canopy and couch which the similar figure has in the Mahisha-mardini sculpture No. 32. The latter, however, may have been hidden by sand and so have escaped notice.

7. MAHISHĀSURA ROCK.—About 100 yards to the north of the Shore temple (No. 6) a sculptured rock, with a niche in it, is to be seen, surrounded by the sea at high water. The sculptured figures of Mahishāśura and the rest could not be made out at all clearly on the occasion of my visit.

10 and 11. After examining the shore temple (No. 6) and the

sculptured rocks Nos. 7 and 8, &c. near it, the path back to the village passes by No. 9, the Puṇḍarika-pushkarinī, and by Nos. 10 and 11, ordinary modern-looking maṇḍapas, to No. 12.

12. THE DOLOTSAVA MAṆḌAPA.—This is a high canopy, on four slender monolith shafts 27 feet high, with fastenings on the top for hanging the swing to on which the god's image is swung during the swinging festival *Dolotsavam*. It stands in the main street of the village just in front of No. 13.

13. THE STHALĀŚAYANASVĀMĪ (Vishṇu) TEMPLE.—This is the large (so called) modern pagoda: admittance into which is not now accorded to strangers.

The outer courtyard and the eastern entrance gateway tower are incomplete. The inner Gōpuram or entrance tower leading into the inner covered court is a very ordinary modern-looking structure, but worth study as illustrating the difference between the older and the modern style of temple-architecture. Above the basement the work is of red brick masonry and stucco. An image of Sthalaśayanāsvāmī (Vishṇu) recumbent, as in the shore temple, may be seen on the tower over the inner doorway, and another is said to occupy the *sanctum sanctorum*, and in all three instances with the head to the south.

One curious thing about this temple is that the Vimāna or innermost sanctuary tower is oblong and waggon-roofed instead of being, as usual, pyramidal and capped by a pointed dome and finial.

14. EMPERUMĀN ("Our Great One").—A small Vishṇu shrine at the north-east corner of the last, No. 13.

5. PĪDĀRI-AMMAN (village goddess) IMAGES AND LĪNGAM.—These are eight flat stone images set up on a mound 350 yards north of No. 12, the Dolotsava Maṇḍapa, on the north-east side of the main street. These represent the divine mothers (Śakti) consorts of the principal deities.

53. THE "GEṄḠONḌA MAṆḌAPA."—At the north end of the main street, just a quarter of a mile north of the Dolotsava Maṇḍapa, No. 12 (unexamined).

54. THE MUKUNDA NĀYANĀR TEMPLE.—This is a small ruinous,

old-fashioned temple, built of big stones, nearly half a mile north of No. 53. It is on the way to Śāluvaṅkuppam, and in style resembles the Chetty's temple (No. 8), the shore temple (No. 6), and the Olakkanneśvara, No. 34. The doorway is on the east side, but is now blocked up by drift sand entered by the roof.

On the back (west) of the shrine-cell there is the oft-repeated tableau of Śiva and Pārvatī with the child Subrahmanya and their suite of deities.

The interior of these built stone temples is much like the shrine-cell of the caves, in having a prominent cornice overhanging its entrance, moulded and decorated as if for an exterior. These little temples also strongly recall the similar small megalithic temples met in (south) Malabar.

55. The way from No. 54 to the Śāluvaṅkuppam sculptured rocks lies for nearly 2 miles to the north-north-east across the bare sand-waste, sprinkled with small pieces of pottery ware, and here and there a mound or sandhill, much like the site of an old native homestead or cluster of houses, and in one spot, near the hamlet of Devanēri, some lines of mounds like the remains of an old enclos^{ure} or fort.

The sculptured rocks lie to the north-east of the hamlet and very near the sea.

56. THE IDAIYAN PADAL MAṆḌAPA.—This is a couple of carved rocks and a shrine front at the south end of the group. The sculptures resemble those on the shore Lion rocks near the ruined Chetty's temple, No. 8½, representing a bare-backed horse, two niches over elephant's faces, a griffin or lion, and a corniced three-cell shrine, embowered in an arc of nine lions' heads.

57. THE IDAIYAN PADAL (" Herdsman's screen ") NEEDLE ROCK.—This is a very tall natural needle rock, standing nearly erect to a height of about 40 feet.

Several rows of small lamp niches have been cut high up on the west side, as has been done in No. 26.

58. ATIRAṆA CAṆḌEŚVARA, OR ATIRAṆA CAṆḌA PALLAVA MAṆḌAPA.—This is an excavation in one of the largest rocks at the north end of the group, some 300 yards from the Idaiyan Padal rocks at their south end.

It is nearly buried in the sand, and consists of a verandah or porch of three bays open to the east, and a shrine cell in the centre of the back wall, containing a handsome polished 16-sided liṅgam and the Śiva tableau so often mentioned.

Two other liṅgams, with the same Śiva tableau again, occupy the two side bays of the verandah. Over the entrance to this shrine the name or title “ Atiraṇa Caṇḍa Pallava ” is cut in two characters, and the north and south end walls of the verandah are inscribed with a transcript in two ancient characters of the inscription in Kāmarāja's temple (No. 24), differing only as to the name of the founder, and in the character being rather more modern, perhaps of the eighth to tenth centuries A.D.

The stout square piers with octagon centres affiliate this to the style of Dharmarāja's Maṇḍapa (No. 44, and to No. 50).

Close to this maṇḍapa is a shed containing six or eight figures of village goddesses carved in stone, somewhat like No. 5.

59 and 60. To the north-west and north of the Atiraṇa Caṇḍeśvara shrine there are two inscribed rocks about 100 yards distant, one mentioning a grant of land, the other having a deed of sale engraved in old Tamil, like that of the inscription on the rock at the Varāhasvāmī temple, No. 35.

61. From internal evidence these old Tamil inscriptions are believed to belong to the year 1115 A.D., and there is another in the neighbourhood at Pavalakkārar Cāvaḍi of the same character, dated in the year corresponding to 1235 A.D.

CHAPTER II.

CLASSIFICATION OF THE ANCIENT REMAINS.

The ancient remains at "The Seven Pagodas" consist of several varieties :—

- I. MONOLITHIC TEMPLES, or shrines called *Rathas*.
- II. ROCK EXCAVATIONS, or artificial cave-temples.
- III. SCENIC AND FIGURE SCULPTURES on the rock, or on the temples.
- IV. INSCRIPTIONS on the monoliths, caves, or open rocks.
- V. STRUCTURAL TEMPLES built of hewn stone.
- VI. MISCELLANEOUS FIGURES AND OBJECTS carved in the rock, &c.

THE MONOLITHIC SHRINES (I) are beautiful and very interesting, as being unique specimens, presumably copies or models, of ancient forms of buildings that must have been common once, but having been constructed in wood or other perishable materials have entirely disappeared. They are small and only suited for single image shrines. Similar remains to these have rarely been met with elsewhere in India. The nearest approach to them would seem to be the Brahmanical (and ? Jaina) rock temples at Elurā near Bombay, and at Kalugumalai in the Tinnevely District of Madras and doubtless at other places but little known.

THE ROCK-HEWN CAVES (II) here are all small and only suited for individual worship of enshrined images. Architecturally they belong to the same style as the small model temples with which they are associated. Outside they are fashioned to represent the *vihāra* or pillared hall with its cell-bearing roof terrace. Inside they contain a mere portico or verandah with one or more small shrine cells, or image niches, quite unsuited for collective worship.

They are more than mere hermit cells, but much less than the Buddhist Caitya caves and halls of assembly. They are mere shrine chapels for individual image worship, and resemble, I should think, the Śaiva caves near Bombay, but are very much smaller. From the descriptions, the Caves of Elephanta would seem to be most like them in design and purpose. In the Madras Presidency there are many scattered examples of the smaller and less ornamental of them, especially in the districts of North and South Arcot and Chengalpat.

THE STRUCTURAL TEMPLES (V), like the Monolith *Rathas* and the Rock-cut caves, are mere ornamental models of large buildings, and contain but a small chamber or cell for an image or emblem and an altar-piece, with no room, court, or covered hall for the assembly and collective worship of any number of people. They are adapted only for the individual worship of an image by single persons.

In style they are not very different from the square pyramidal *Rathas*, and in ornamentation and purpose much resemble the caves also.

The older Śaiva temples in Southern India resemble them closely, and if I am not mistaken, small megalithic temples, just like them, are to be found on the opposite (Malabar) coast of Southern India.

THE SCENIC AND FIGURE SCULPTURES ON THE ROCK (III), even more than the monolithic *Rathas*, are believed to be unique, and although much weather-worn are extremely interesting. They seem for the most part to represent scenes from the early Hindu mythology, in which the animal kingdom figures largely. The larger groups carved on the open face of the rock are comparatively free from the supernatural extravagances of the later conventional mythology, and one of them (No. 15) seems to be entirely free from the supernatural.

As works of art these sculptures can hardly be assigned a high rank. Compared with the Amarāvati marbles they are very coarse and rude, but perhaps not more so than the difference of the material wrought.

The rock here is the common quartzo-felspathic gneiss, exceedingly brittle, hard, coarse and intractable, but generally less laminated and flakey than usual.

We cannot however now tell for certain what the work was like originally owing to the weathering of the surface, and because it would seem that they were evidently at one time, perhaps originally, covered by a thin coating of plaster and paint or colour-wash.

THE INSCRIPTIONS (IV) are few but important, in so far as they have afforded reliable palæographic evidence for determining the date at which they were engraved, and the purpose for which the temples were made.

There is a Sanskrit inscription in characters of about the sixth or seventh century (c. 700 A.D., Burnell), containing a dedicatory invocation to Śiva, on the wall of the small wagon-roofed *Ratha* or monolithic temple (No. 24), parts of which are also engraved on another *Ratha*, No. 43, and on two of the rock-cut excavations, showing that some of the caves and monoliths were existing together about 700 A.D.

A single invocational verse in one of these partial transcripts seems to describe or at least to allude unmistakeably to the Śiva tableau which is found so frequently in the shrine cells here, both in the monoliths, caves and structural temples, apparently intended as an altar-piece to accompany the linga, and pointing to the similarity, in purpose and age, of the latter (the structural temples) with those of the former (the caves and monoliths).

No inscription seems to have been found on the structural temples, but they are by far the most ruinous of the remains and most weather worn. If searched diligently, however,

they might still yield some inscription, for it is the most finished of the shrines that have the inscriptions found, and the structural temples appear to have been the most finished of all the works.

The paucity of inscriptions perhaps points to the works having been done by a prince who failed to record his name because he very likely never lived to see their completion. Had they been the joint votive offerings of many persons, we should have seen the names of the donors subscribed, as usual in temples in this country.

Besides the Sanskrit inscriptions engraved in or on the shrines, there are several old Tamil inscriptions engraved on the open rock hereabout, referring to the Ādivarāha (Vishṇu) temple in Māmallapuram, one of which is actually dated in the Śāka year 1157 (=1235 A.D.), and the dates of two others satisfactorily made out, one and two centuries earlier.

There are a few inscriptions (see 44, 16 and 51) which have not been published apparently.

Besides the monolithic shrines, the caves, the structures, the bas-relief scenes and figure carving, and the inscriptions, there are numerous other objects which have been numbered in the map or are worthy of notice, which may be termed.

MISCELLANEOUS (VI), amongst which the Lion rocks (8½ and 56), with horse and niche-bearing elephants, are very curious and specially worth study.

Following out the details of the foregoing classification the objects may be arranged as under :—

- I. THE MONOLITHIC SHRINES ; and these may be sub-divided into four distinct types :
- A. The square thatched hut ; this is the simplest form of shrine or hermit's cell, and the imitation cells on the roof terraces of the other

Map No.

37 classes resemble it. Of this class there is only the goddess shrine, Draupadi's *Ratha* No. 37.

B. The square based shrines, with pyramidal roof in steps or terraces, each bearing a continuous row of oblong and square domical imitation cells. The whole capped by a quadrangular or octagonal dome, and furnished with a projecting portico.

39, 2, To this class belong No. 39 Nakula's, Nos. 2 and
3, 4 3 the Piḍārikulam (quarry), and No. 4 the Valaiyaṅkuṭṭai *Rathas*, all of three storeys,
43 and No. 43 Dharmarāja's *Ratha* of four storeys.

(The structural temples Nos. 6, 8, 54 and 34 belong to the same architectural type.)

C. The oblong waggon-roofed shape with curved gable ends: of this class there are two; Bhīma's *Ratha* of two storeys and but one roof terrace with the cell ornaments; and Arjuna's *Ratha* or Kāmarāja's temple, of three storeys and two tiers of cell-bearing terraces. No. 33, which has only been commenced, may have been intended to be of this shape.

D. The apsidal temple with ridge roof, one end of which has a curved gable façade, whilst the other is the half of a dome.

Of this class there is but one example, Sahadeva's *Ratha*, No. 41.

The imitation cells or cell-ornaments at the angles of the roof terraces of the monolithic shrines and of the rock-cut cave façades belong to classes A and B, the square, domed shrines; whilst those that are intermediate, the oblong cell ornaments, belong to class C; and amongst the cell ornaments on Dharmarāja's *Ratha* (43) there are two that seem to

belong to class D. The pillars of all the *Ratha* monoliths are lion-based, except No. 37 and the wholly unfinished ones 2, 3, and 33.

Map No.

II. THE ROCK-CUT EXCAVATIONS.—The rock-cut excavations are small, and may be divided into two or three classes :

A. Those that have a plain exterior, with plain square piers, 3 or 4 diameters in height, and without any roof pattern façade of cell ornaments.

44 To this class belong No. 44 Dharmarāja's
58 Maṇḍapa, No. 58 the Atiraṇacaṇḍa Maṇḍapa,
50 No. 50 the Kōṭikal Maṇḍapa, and perhaps also
46 No. 46 which is only begun.

B. Those caves that are ornamented with a sculptured façade of cell ornaments, a prominent cornice, and tall slim sculptured pillars, 7 to 10 diameters in height.

48 To this class belong No. 48 the Rāmānuja
Maṇḍapa ;
32 The Mahisha Mardini Maṇḍapa ;
25 The Varāhasvāmī Maṇḍapa ;
16 The Pañca Pāṇḍava Maṇḍapa ;
51 The Kōnēri Maṇḍapa (North) ;
52 The Kōnēri Maṇḍapa (South) ; and
30 Perhaps the anonymous Maṇḍapa No. 30 may
be also included. All of these, except Nos. 52
(and 30 ?), have the lion-based pillars.

C. In a separate class may be included the rock-cut shrine cells which have no maṇḍapa or portico, and the small shrine niches.

The Kapālīśvara or Nandagopālpālaiyam cells
21 and façade, No. 21, is the principal of this

Map No.

class, to which the Idaiyan Padal Maṇḍapa also belongs ; and the smaller niches and sculptured rocks, Nos. 7 and $8\frac{1}{2}$, may be included likewise.

III. THE ROCK CARVED SCENES AND FIGURE SCULPTURES may be classed as follows :

(A) The large scenic groups cut in relief on the face of the open rock.

(B) The smaller groups carved on the large wall panels of the shrines and maṇḍapas ; and

(C) The single figures or couples carved in the niches and narrow wall panels.

A. The large scenic group class comprises :

15 The great pastoral group in the Kṛishṇa Maṇḍapa.

17 Arjuna's Penance (North).

45 Arjuna's Penance (South).

22 The elephants, ape, and peacock.

B. The smaller tableaux on the wall panels are numerous :

43 The "Śiva at home" tableau in the upper storey shrine cell of Dharmarāja's *Ratha*.

32 "Śiva at home" in the shrine, Durgā and Nārāyaṇa on the end walls of the Mahishamardini or Yamapurī Cave.

25 The Varāha and Vāmana (Vishṇu) Avatāras, the Gaja Lakshmī, and Bhadrakālī (?), four tableaux on the Varāha Maṇḍapa walls.

35 The Varāha Avatāra tableau and 8 others in Varāhasvāmī Temple.

6 "Śiva at home" in the two shrines and portico of the Shore Temple : much other sculpture on this temple.

Map No.

- 58 "Śiva at home" in shrine and portico of the Atirāṇacandēśvara Cave.
- 54 "Śiva at home" in the shrine of the Mukunda Nāyanār Temple.
- 37 Four-armed Goddess with attendants in shrine and on walls of Draupadi's *Ratha*.
- 21 Many-armed Gods and Goddess in the cells of Nandagopālpālaiyam or Kapāliśvara.
- 52 Ten Dvārapāl warders : and generally a pair at every shrine cell in the place.

C. Single human figures or couples, besides the Dvārapāl warders, too numerous to specify are found on the portico wall panels and on the upper storey wall panels of the *Rathas*.

- 43 Four-armed Gods, with or without their consorts, clad and unclad—Rishis, ascetics, &c., &c., are found on the narrow projecting recessed panels and wall niches of all the *Rathas* and on No. 34, 6, &c. 34 the Olakkanneśvara Temple, on No. 6 the Shore Temple, and on the more finished of the cave façades.

IV. THE INSCRIPTIONS may be classed as—*A*, Sanskrit (Nos. 43, 24, 58 and 48) ; *B*, Tamil (Nos. 35, 59, 60 and 61) ; and *C*, Unpublished (Nos. 44, 16, 51, and 15).

A. Sanskrit.

- 43 Explanatory labels of mixed Śaiva and Vaiṣṇava epithets over the wall panel figures on Dharmarāja's *Ratha*, in Sanskrit, in the early Pallava or Eastern Cēra character of about the fifth century A.D.
- 24 A dedicatory and devotional Śaiva inscription in Kāmarāja's Temple, in Sanskrit and the Pallava character of about 700 A.D.

Map No.

- 58 A dedicatory inscription with invocation of Śiva and his attendant divinities (? Brahmā and Viṣṇu), in Sanskrit, and in the Pallava character of about the eighth century. It is also transcribed in the old Grantha and Nāgarī characters all on the end walls of the Atiraṇacaṇḍa Pallava Maṇḍapa.
- 48 A few Sanskrit words on the floor of the Rāmānuja Maṇḍapa (cave), identical with the latter part of the Kāmarāja inscription (24).

B. Tamil.

- 35 A long Tamil rock-cut inscription alongside the Varāhasvāmī Temple. It contains some grants of land to the temple and belongs to the year 1073 A.D.
- 59 Short old Tamil inscription on a flat rock a little north-west of No. 58.
- 60 Rock-cut old Tamil inscription (deed of sale) 100 yards north of No. 58, date 1116 A.D.
- 61 An old Tamil inscription on stone at Pavalakāran Cāvaḍi records a gift of land for Viṣṇu, and is dated 1235 A.D.

C. Undetermined.

- 44 Dharmarāja's Maṇḍapa (cave) inscription; 12 lines, each 4 feet long.
- 15 A few words "scrawled in the modern Telugu character" on the floor of the Kṛishṇa Maṇḍapa.
- 51 A word or two on floor before shrine of Kōnēri Maṇḍapa north.
- 16 A long inscription associated with a lingam in the Pañca Pāṇḍava Maṇḍapa.

Map No.

V. THE STRUCTURAL TEMPLES or built shrines may be classed as (A) old-fashioned, and (B) modern-looking or mediæval.

A. Old-fashioned.

- 6 The Shore Temple : built of big hewn stones and covered with figure carvings.
 8 Chetty's Temple (ruin) : built of big hewn stones, carved.
 54 Mukunda Nāyanār Temple : built of big hewn stones, carved.
 34 Olakkannēśvara Temple, Ruin : built of big hewn stones, covered with figure carvings and groups, and formerly lined with brick masonry.
 ?? "Megalithic built *Ratha*" (see *Chēṅgalpat District Manual*, p. 99 I did not see this) ?

B. Mediæval or modern-looking.

- 6 Kṛishṇa Maṇḍapa ; Pillared hall before great rock-cut pastoral Bas-relief.
 35 Varāhasvāmī Temple : enclosing rock-cut tableau and figures.
 (? 48) The Rāmānuja Maṇḍapa Colonnade (begun only).
 1 Piḍāri Amman Temple, four-armed Goddess, liṅgam, altar, lion, &c.
 9 Puṇḍarika-pushkarinī, masonry tank with maṇḍapa in centre.
 10 Small Maṇḍapa on north bank of No. 9.
 11 Built Maṇḍapa or shrine (? that of Hanumān, Carr, p. 217).
 12 Dolotsava Maṇḍapa, swing cupola on four tall pillars.
 13 Sthalaśayanasvāmī (Vishṇu) Temple, with oblong ridged Vimāna and big Gopuram.
 14 Emberumān (Vishṇu) subordinate shrine.

Map No.

- 19 Īśvara Temple with liṅgam : Nandī recently removed.
- 27 Rāyala Gopura : one behind No. 13, on the rock, and one in front of it on the plain (see Kāvali Lakshmayya, Carr, p. 217).
- 47 Velugoṭi Siṅgama Nāyudu Maṇḍapa : a very rude building.
- 53 Geṅgonda Maṇḍapa.

VI. The remaining MISCELLANEOUS objects may be classed as :

(A) Small sculptured Rocks (7, 8½ and 56).

(B) Monolith images (6, 36, 38, 40, 18 and 5) ; and

(C) Miscellaneous objects.

A. The smaller sculptured rocks are ;

7 Mahishāśura Rocks, on sea-shore, north of the Shore Temple.

8½ Lion Rocks . with horse, niche-bearing elephant, niches and figures, &c.

56 Lion Rocks : with horse, niche-bearing elephant, lion-bowered cell, &c.

B. Monolith images are :

6 Image of Viṣṇu recumbent in the Shore Temple, also in 13.

36 Lion monolith.

38 Bull monolith (colossal).

40 Elephant monolith.

18 Couple of Monkeys and suckling.

5 Piḍāri Amman Village Goddess images and liṅga.

C. Miscellaneous objects are :

28 Lion throne or Siṃhāsana of Dharmarāja.

31 Plain stone couch.

Map No.

- | | |
|-----|---|
| 49 | Mahishāsuras' couch. |
| 20 | The Gopīs' or Draupadī's churn. |
| 29 | Draupadī's bath. |
| 17½ | Slide and stairs. |
| 26 | Lamp niche rocks. |
| 57 | The Idaiyan Paḍal needle rock, with lamp niches. |
| 27¼ | Pañca Pāṇḍavas' burnt-offering pits. |
| 27¾ | Water channel. |
| 55 | Devanēri mounds : supposed ancient site. |
| 23 | The Butter ball : a natural boulder on slope of the rock. |
| 21½ | Bhīma's kitchen hearth : with steps to summit. |
| 27½ | Treasure pack of the Pañca Pāṇḍavas. |
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CHAPTER III.

ON THE PREVALENT STYLE, ORNAMENTS AND EMBLEMS.

One of the first impressions I received was the sameness of the style of ornamentation, not only in the roofs of the temples (monolithic and structural) and the imitation-roof façades of the caves being made in steps or terraces adorned with the simulated domical cells (the regular Dravidian style), and in the sameness of the style of the pillars and pilasters—which somewhat resembles that of the Brahmanical works at Elurā and Elephanta near Bombay—but also in the prevalence of certain forms in the ornamentation, especially of the *Simha*, the conventional lion or “*leo-griff*” which is to be seen in various forms in twenty different works here. The frequency of the *Simha* is almost paralleled by the scarcity of the bull *Nandī* which so commonly now-a-days accompanies every Śaiva temple with a *liṅga*. The relics of a number of stone bulls are to be seen at low water near the Shore temple that have been cast into the sea and are now scarcely recognizable. A single bull remains in its position over the portal of the smaller (western) shrine of the Shore temple No. 6, which with the colossal stone bull No. 38, and those that are represented in the Śiva tableaux as affording a footstool to the celestial couple, make up all that I can recall. In like manner the *liṅga* is to be seen scattered about here and there all over the place, and scarcely anywhere in its proper place intact, except in the Atiranaṇḍa Pallava Temple No. 58, at Śāluvaṅkuppam. As nearly all the shrine cells here have a hole or socket in the middle of

their floor, and very frequently a circle carved round it, much like some of those in which the *liṅga* is still to be seen, there seems reason to believe that they were nearly all, whether monoliths, caves, or buildings, Śiva (Liṅga) shrines.

But besides the general displacement of the Bull and the *Liṅga*, there are other evidences of iconoclastic activity on the part of a more recent religious sect than that of the original authors. For instance, we see in the Rāmānuja excavation No. 48, the central shrine cell has been completely cut out, so as to lay open the three cells and render the cave a single chamber. Moreover the three fine sculptured tableaux which once adorned this shrine have been carefully obliterated, as also have the two *dvārapāl* warders. The only emblems remaining unhurt are the *caṅkha* and *cakra*, which appear to have been subsequently scored or marked, rather than carved, on the end walls of the (excavated) terrace in front of the chamber. Again No. 52, the Kōnēri excavation, has been treated much in the same way; its five *liṅga* ? shrines being vacant, and the *caṅkha* and *cakra* marked on the terrace walls outside.

If the name of Rāmānuja, the great anti-Śaiva reformer who strove for the Vaishṇava faith in the twelfth century A.D., is any indication, it would seem that his followers may have been the iconoclasts who displaced the objects of Śaiva worship and destroyed its shrines, as has been done in the Rāmānuja, Kōnēri, and Dharmarāja's (No. 44) cave shrines, and in the Olakkanneśvara (No. 34) the built temple, which has been completely eviscerated, and other cases. To prevent there being any doubt as to who the desecrators were, it would seem that they have intentionally left their mark (the *caṅkha* and *cakra*, the conch shell and discus) in No. 48 and No. 52.

Had the Śaivas destroyed the Vaishṇava shrines and emblems in any Śaiva revival, such as is said to have occurred in

the thirteenth century, we should not probably see Vaishṇava emblems remaining on old Śaiva shrines, nor names or epithets of Viṣṇu inscribed over some of the figures of Śiva on the sculptured monolith (No. 43), and we should expect to see the scattered *lingas* restored to their original place in the shrines.

REMARKS ON THE ANTIQUITIES AT THE SEVEN PAGODAS.

THE ROCK SCULPTURES.

Of the scenic sculptures on the rock (in relief), that of the so-called Kṛiṣṇa amongst the cowherds upholding Govardhan (No. 15 of the Revenue Survey Map list), appears to be entirely free from the ordinary Hindu mythological and conventional extravagances, such as extra (superhuman) limbs, celestial attendants, &c., and may therefore be the oldest.

Next to this perhaps comes the great *bas-relief* representations of Arjuna's Penance, No. 45 and No. 17, in which there is but a single figure in each that has more than two arms; but they both contain many mythological unearthly figures, denizens of the celestial paradise.

After the great *bas-relief* rock sculptures, the figures carved on the panels of the monolithic shrines or *Rathas* may be named as comparatively free from the superhuman extravagances of modern Hindu mythology. Many of the figures are simply two-armed men and women, and unobtrusively four-armed gods.

In the porticos and shrines excavated out of the rock, the superhuman extravagances of the human form in the tableaux intended to represent the deity in various incarnations and performances, are manifold, and perhaps indicate a more recent date. But there is one tableau common to the monolithic shrines, the caves, and the built temples, which may be

supposed to represent Śiva enthroned in Kailāsa, accompanied by his consort Pārvatī and the child Kārttikeya, attended by two subordinate divinities (? Brahmā and Viṣṇu). It is found in the upper story shrine cell of No. 43, Dharmarāja's (monolithic) *Ratha*, also in the central shrine of cave No. 32 (Yamapurī), and thrice in the Atiraṇacandeśvara cave temple No. 58, where it is accompanied by a descriptive invocation in characters of the eighth century and later. It is also found twice, in the two chief shrines of the Shore temple No. 6, and again in the other built temple, the Mukunda Nāyanār No. 54, and may very likely occur in others. I noted its occurrence eight or ten times in my hurried inspection.

MIXTURE OF DEITIES AND EMBLEMS.

I was also struck with the mixture of emblems, weapons, and figures belonging to both the Śaiva and Vaiṣṇava phases of Hindu faith, as for instance, in the numerous rings, circles, discs, the axe (*paraśu* of Śiva ?), the conch shell (? of Viṣṇu), the curved sword, and many sorts of staves and clubs carved on the monoliths and in the shrines.

Kāvali Lakshmayya states (Carr, p. 203) that Kṛṣṇa-svāmī (known by his "Caṅkha, Cakra, Gadā, &c.") occupies the shrine represented in the great Penance scene No. 17, in which Īśvara or Śiva is the principal personage, whom all the creatures are coming to visit.

Then in the larger cave, No. 32, we see Viṣṇu (Nārāyaṇa) occupying a prominent place equal to that of Durgā, although, as also in the attached shrine of the Shore temple No. 6, subordinate to that of Śiva. In the Varāhasvāmī Maṇḍapa No. 25, we have two Vaiṣṇava tableaux, the Gaja Lakshmī, which was a favourite design in old Buddhist times (free from the later extravagancies of supernatural limbs and attendants), and lastly Bhadrakālī (Carr, p. 50), or according to Kāvali Lakshmayya, Durgā. The shrine cell here,

too, No. 25, is not quite dumb, though now vacant, for the panel shows the rude outlines of a tableau which may possibly have been the Śiva tableau or altar-piece of which there are so many copies to be seen here.

The Śiva in Kailāsa tableau just mentioned as a common altar-piece, represents Śiva, they say, attended by Brahmā and Viṣṇu, with his consort Pārvatī and the son Subrahmaṇya.

THE MONOLITHIC ARCHITECTURAL MODELS.

The architectural forms are as mixed and various as the figures and emblems carved on them; but this is a subject which I am incompetent to discuss, having had no instruction or practical training in it.

Except that I have had the advantage of seeing Mr. Fergusson's admirable volume on Indian and Eastern architecture, my evidence is of no more value than that of any previous ordinary observer.

Beginning with the monolithic temples, and the simplest first, we see a small plain cubical hut or house, Draupadi's *Ratha* No. 37, containing a single chamber without any porch, having a quadrangular curvilinear or domical roof, precisely like a square stack of hay or straw with its curved thatch falling down from the peak, alike on all four sides to the eaves, which project well beyond the side walls and shelter them. This may very likely represent the earliest style of structural habitation, one of common occurrence down to the present time, and especially common in Southern India. Four wooden posts are planted at the corners and support four cross beams whose ends project, as represented here by the stone brackets. The four walls are formed of mud or plaster and a thatch of grass, straw, or leaves added, upon a frame of bamboo or other poles.

This simple form of a thatched hut in stone seems a most appropriate shrine for the *Śakti* or goddess worship to which,

from the sculptured figures within and around it, it appears to have been devoted. The *Grāmadevatas* or tutelary village deities are all (with one exception) females.

This form of roof for a shrine is not altogether singular, for several of the celebrated ' *Sabhā* ' halls at Chidambaram are of this shape, and the square domical cells at the angles of the Dravidian temple roof terraces are much in the same style, and the quadrangular domes of the Nāyaks (in Tanjore and Madura) are not far removed from it.

Next to the thatched hut style of temple, we see the pyramidal or Dravidian style of temple tower. This is supposed to be derived from the form of the Buddhist Vihāras or monastic colleges, which were a succession of pillared halls in several floors or stories, one above the other, decreasing in size to the summit, which is crowned with a quadrangular or polygonal dome. Each step or terrace of the roof is furnished with a row of simulated cells, supposed to represent the Buddhist monks' dormitory or meditation cells. They are oblong, with a vaulted or waggon roof, except at the angles, where they are square and domed, and a simulated vaulted corridor or covered passage runs round each roof-terrace like a parapet wall, joining all the cells together. This cell ornament became universally adopted in the Dravidian style of temple tower and elsewhere. At the Shore temple No. 6, the screen wall is furnished with an ornamental coping of this cell pattern. Another feature the Dravidian style has inherited from the Buddhist is the horse-shoe ornament seen so commonly on the eaves of the domical roofs and carved cornice projections with which each terrace or flat roof is edged.

There are five of these pyramidal dome-capped monolithic shrines or *Rathas* at Seven Pagodas ; four of three storeys and one of four storeys (Nos. 2, 3, 4, 39 and 43). All these have, or were intended to have, a projecting portico on one side forming a vestibule or verandah leading to a chamber or

shrine cell, in most of which a *liṅga*, the emblem of Śiva, was enshrined, with a sculptured altar-piece or tableau carved on the panel of the back wall.

The old structural temples Nos. 6, 8, 34 and 54, are of the same style and design as these pyramidal monoliths, and apparently were erected for precisely the same purpose. Old temples of this style may still be seen in the districts south of Madras and in Malabar. But the nearest likeness to the original of these Vihāra-like pillared halls, as figured in Fergusson's volume (I.E.A., 1876, p. 134) I have met, is the Gandhamāna Pārvata open pillared maṇḍapa at Rāmeśvaram, which only wants the cells to complete the likeness, the terraces there being quite vacant.

Next to the pyramidal shrine comes the oblong waggon-roofed form with curved gable ends. Of this there are two specimens here; one of only two storeys, Bhīma's *Rath* No. 42, having a single cell-bearing terrace, and one of three storeys, Kāmarāja's Temple No. 24. These are supposed to resemble the halls or porticos of the Buddhists. No. 24 is nearly finished, and was always apparently intended for the small shrine cell it has now. The other, No. 42, may be supposed to have been intended for a larger shrine cell, but it has no projecting portico on one side.

It rather represents an oblong hall surrounded by a verandah which is open and supported by pillars in the centre of each of the four sides, whilst the ends of the verandah, *i.e.*, the four square blocks at the angles, have been left closed, as if intended for four small chambers or for stairs. The original must have been admirably well adapted for a college hall. The great Gopurams or entrance towers of South Indian temples are the lineal descendants of this waggon-roofed form of building; but, as seen from without, the modern Vaishṇava temple (No. 13) at this place, singularly enough, has its principal Vimāna or shrine tower of this shape (and is so described in the *Sthalapurāṇa*, see

Carr, p. 181). The only other buildings with this kind of roof that I remember having met are some of the rough-stone huge buildings in the lower fortress of Ceñji (*Anglice* "Gingee").

A slightly different form of building is represented in No. 41, the apsidal *Rath*, which is also oblong and waggon-roofed with a curved gable at one end, but rounded and roofed by a half dome at the other. This may be supposed to represent the external form of a Buddhist Caitya hall, the form of the interior of which may be known from the vaulted Buddhist caves near Bombay.

I have seen apsidal temples built of stone to the southward, on the coast-road leading to Rāmeśvaram, in the north-eastern part of Rāmnād, I believe; but the nearest structural copy of this monolith (the apsidal Rath No. 41) is the Dharmēśvara Temple at Maṇimaṅgalam, about 20 miles south-west from Madras. I think also that two of the ornamental imitation cells at the angles of the portico projection of the upper floor of Dharmarāja's *Rath* No. 43, will be found on further examination to have this plan of roof, half dome and half ridge, with one curved gable end. This completes the four classes or forms of ancient religious buildings observed here :—

1st.—The small hut-like shrine with curved thatched roof, for the *Śakti* worship (?)

2nd.—The quadrangular Vihāra-pattern building, having the pyramidal dome-capped roof, with its steps or terraces of cell ornaments.

3rd.—The waggon-roofed (? college) hall, with two gable ends; and

4th.—The round-ended or apsidal Caitya-hall pattern.

THE ROCK-HEWN CAVES.

The rock excavations are generally very small compared with those near Bombay, at Elephanta and Elurā, but are

more or less in the same style and intended for the same purpose, the worship of Śiva under the symbol of the *liṅga*.

They are flat-roofed caves, consisting of a maṇḍapa or portico open on one side, and forming a covered verandah or vestibule to the shrine cell or cells which have been excavated out of the rock behind the back wall. They may be divided into two or three classes.

A. The first or simplest having a very plain exterior and plain square wooden-pattern piers and brackets, with nothing but the corners cut off for ornament (?), and without any imitation roof façade on the rock above them outside. To this class belong the Dharmarāja's Maṇḍapa No. 44, the Kōṭikal No. 50, the Atiraṇacaṇḍa No. 58, and perhaps also the anonymous and unfinished excavation No. 46. The interior of these maṇḍapas is more ornamental than the outside, the walls being divided into sculptured panels with pilasters between and beside the cell doorways, above a moulded plinth, and below a prominent cornice, which, with the contents of the shrine (the *liṅga* with Śiva tableau), affiliate them to the *Raths* and the other caves. There are many caves of this sort in the neighbourhood or adjacent district.

B. The second class consists of the more sculptured excavations which have an elaborate façade outside as well as in, with the representation of a cell-bearing terrace roof above them, and ornamentally carved pillars. To this class belong all the principal excavations with the sculptured tableaux Nos. 25, 32, 48, 16, 51, 52, and perhaps No. 35 also.

C. A third class of excavations consists of those that have no maṇḍapa or porch, but merely the façade

and shrine cells cut out of the rock. In this class may be included the Nandagopālpālaiyam with Durgā &c., No. 21, the Idaiyan Paḍal rock shrine No. 56, and perhaps also the smaller niches in the sculptured rocks Nos. 7 and 8½.

THE INSCRIPTIONS.

The inscriptions at Seven Pagodas noticed are as follows ; the references below being to Dr. Burnell's *South Indian Palæography*, 2nd Edition, 1878.

Madras Survey

Map No.

- (43). 1. Explanatory labels, mostly over the figures of men with four arms and tall caps on, carved on the wall-panels outside the larger pyramidal *Ratha* (No. 43). The language is Sanskrit, and the character what Dr. Burnell calls Eastern Cēra, "very near to the Veṅgi" (S.I.P., Pl. I, c. fourth century A.D.) and to the "Cēra" (S.I.P., Pl. II, 467 A.D.): and they belong to "the earlier stage of development" of his "Eastern Cēra or Pallava" alphabet of about 700 A.D., Pl. XII. He also states that these earliest characters correspond with the original work, which he attributes to Jains of about the fifth century. We may perhaps therefore conclude with Mr. Crole that these inscriptions may have been engraved "somewhere about the fifth or sixth century." But they may possibly be older, for "decidedly archaic forms of letters occur," "which early disappeared in the Cālukya and Cēra characters" (S.I.P., pp. 38, 39);

Map No.

and at p. 12 Dr. Burnell includes these with similar short inscriptions at Amarāvati as "written in a character precisely similar to that used in the cave inscriptions near Bombay," which latter belong to the first century B.C. and the first and second A.D.

- (24). 2. The Kāmarāja Pallaveśvara monolithic shrine inscription (No. 24). This is a Sanskrit inscription of ten or twelve lines in the Pallava character, put at about 700 A.D. by Dr. Burnell (S.I.P., p. 38). Palæographically it is later than that of the southernmost *Ratha* (No. 43), and of about the same age or rather older than that of Atiraṇacaṇḍa Pallava (to follow). It is a dedicatory invocation to Śiva as "Śambhu" in such terms as were only possible after Śaṅkarāchārya's development of the Vedānta (650 to 700 A.D.), and in praise of the Pallava king, only possible prior to the Coḷa conquest of Tondaināḍu, which is believed to have occurred in the eighth century. At the foot of the inscription is the outline of a house or temple with a ridge roof and *Kalaśa* ornaments. It is shown on Plate XIV of Carr with a *liṅga* (?) in front of an altar, under a rosette. It may be intended to represent the temple on which it is engraved, mentioned in the inscription as "this abode of Śambhu." A transliteration of this inscription is given in note 4, p. 38, S.I.P., (1878).

- (58). 3. The Atiraṇacaṇḍa Pallava inscription. This

Map No.

is a Sanskrit inscription engraved on the north and south end walls of the Atiranacandeśvara Maṇḍapa (rock excavation) at Śāluvaṅkuppam (No. 58).

It consists of ten lines, or five *ślokas*, in three different characters, Pallava, Nāgarī and old Grantha. The Pallava writing is a still more developed form than that of the Kāmarāja Pallaveśvara (24), but Dr. Burnell puts them down together as about 700 A.D. (p. 38).

The Nāgarī transcript is of the eighth or ninth century, and the old Grantha transcript “very near to that of the eleventh century.”

This thrice-written inscription is in dedication to, and in praise of, Śiva and of the founder; and its first, second, third and fourth *ślokas* are identical in matter with lines No. 8, 9, 10, and 4 (respectively) of the Kāmarāja inscription, lines 1, 2, 3; 5, 6, 7; 11 and 12 of which are here wanting, but a fresh one, No. 5, containing the name of the founder Atiranacanda and an invocation of “Śiva, Pārvatī, Kārtikeya, and their suite of deities.” This is especially interesting as descriptive of the Śiva tableau which so often accompanies the *liṅga* set up in these shrines. It runs thus: “Atiranachanda, Lord of Kings, *built* (?) this place called Atiranacandeśvara. May Śiva the beloved, accompanied by the daughter (Pārvatī) of the snowy mountain, by Kārtikeya, and their suite of deities, be present in it for ever.” (Carr, p. 59.)

Map No.

Besides the inscriptions inside this maṇḍapa, the title “Atiraṇacaṇḍapallava” is engraved, in two of the old characters, on the frieze above the entrance.

- (48). 4. The Rāmānuja Maṇḍapa floor (cave) inscription. This is a partial inscription of eight or ten Sanskrit words cut on the floor of No. 48, and identical with the last line and a half (11 and 12) of the Kāmarāja inscription No. 24 (Carr, p. 222).

This tends to confirm the idea that this was originally a Śaiva shrine.

- (44). 5. Dharmarāja's Maṇḍapa (cave) inscription (No. 44). This is a longish inscription on the south (or south-south-east) end wall of the verandah or portico. There are some twelve lines, each about 4 feet long. I cannot find any note of the character, or remember what it was like. It is just mentioned as “a long inscription, now almost illegible,” at p. 103 of Carr's book.

- (51). 6. The Kōnēri Maṇḍapa (cave) inscription, on the floor in front of the shrine cell No. 51, consists of a single word or line, of the character of which I can find no note.

- (16). 7. The Pañca Pāṇḍava Maṇḍapa (cave) inscription. The entrance to this (No. 16) being choked up with a store of mortar, &c., was not accessible to me for examination. (See notes to accompany Captain Lyon's photographs No 425, p. 62, where it is mentioned as “a long inscription,” and associated with a *lingam*).

Map No.

- (35). 8. The Varāhasvāmī Temple rock-cut inscription. This is engraved on the rock in a niche alongside the Varāhasvāmī Temple (No. 35) in old Tamil characters. It is dated in the 9th *āṇḍu* (= year) of Koppara-keśari-varma, also called Uḍaiyār Śrī Rājendra Devar, and records two grants of land for the Ālvār in the temple of Śrī Parameśvara Mahāvarāha Viṣṇu by the people of "Jananāthapura which is Māmallapura." By the identification of the prince here mentioned with Vīra Rājendra Coḷa, and other internal evidence, the date of this inscription has been determined to be 1073 A.D.
- (59). 9. This is a short inscription, in the old Tamil character, cut on a flat rock level with the ground a little to the north-west of the Atiraṇacaṇḍapallava Maṇḍapa No. 58. It refers to a grant of land to "Ijjagatala Tamānār," which title refers to Atirana-ṇḍeśvara. (See Carr, p. 120.)
- (60). 10. This is a rock-cut inscription, in the old Tamil character, about 100 yards to the north of the Atiraṇacaṇḍa Maṇḍapa, and has been determined to belong to the year 1115 or 1116 A.D. (Carr, pp. 126-141). It records the sale of certain land belonging to Pillaiyār or Subrahmanya in the village of Tiruviricilūr, by the officers of the Śrī Maheśvara Temple and certain officiating Śaiva Brahman proprietors, on account of the falling off of the temple

Map No. revenues, perhaps from the decline in the wealth and numbers of the worshippers of Śaiva about this time, 1100 A.D. (Carr, pp. 121-124.)

- (61). 11. This is a dated inscription, in the old Tamil character (precisely similar to the previous inscriptions 8, 9, and 10), cut on a stone under a big Pipal tree near the steps on the south side of the tank in the neighbouring hamlet of Pavalakkāran Cāvaḍi. It is dated in the Śāka year 1157 (= A.D. 1235), and records the gift by one Tiruveṅgala Nāyakar, of a piece of land surrounding the maṇḍapam dedicated by Timmappa, for the halting-place during the Pādivēṭṭai Tirunāl (? hunting festival) of Perumāl Ādivarāha Jñāna Pirān (Vishṇu), the deity of Pūñjēri, Tirupārkaḍal and Māmallapuram. (See Carr's quotation of Sir Walter Elliot, pp. 124, 125.)

CONCLUSION.

The antique works in stone at Māmallapuram or Seven Pagodas appear to be Brahmanical and of northern origin.

They would seem to have been executed by some Pallava princes during a time of Śaiva ascendancy prior to its struggle with the Vaishṇava faith.

The architects and workmen may have been the remains or the descendants and successors of the Buddhist masons who wrought the splendid marbles of Amrāvati and excavated the cave temples of Undāvilli on the Kistna river at Bezvāḍa. During the decline of Buddhism in India a colony or some

families of Buddhist masons may very likely have stopped here on their way to Ceylon. Buddhist forms are recognizable in the form of the terraced roofs of the rock-cut shrines, with their rows of cell ornaments; in the shapes of the waggon-roofed and apsidal monoliths Nos. 24, 42, and 41; in the *trīśūl* ornaments that still surmount No. 24; and a few other Buddhist forms and ornaments, amongst which the prevalence of the lion and the elephant may be mentioned.

Nāga figures are to be seen, but not very frequently, amongst the sculptures. Indeed in the great bas-relief No. 17, called Arjuna's Penance, a Nāga-hooded couple (king and queen), serpentine below the waist, with a simple Nāga snake below them again, occupy the centre cleft of the sculptured rock, but as they are not integral, but are separate images, set in places cut to hold them in the cleft, they may have been put there subsequently to the original sculpture. On the other hand, adjacent couples of Nāga figures cut in the rock on both sides of the cleft seem to show that they originally belonged there.

I do not doubt but that there may be, probably must be some succession in the antique architecture, but I am unable to trace it; and to my untutored eyes the cave façades, most of the monoliths and even the structural temples, belong to one style and were designed for the same devotional purpose. But although I fail to see much evidence of succession in the architectural style of the older works, I seem to see the evidences of a religious revolution; the supersession of the Śaivas by the Vaishṇavas. The comparatively ruined and desecrated state of the Śaiva shrines, and the dispersion, overthrow and destruction of the liṅgas, together with the unmolested state of the Vaishṇava shrines and symbols, suggest strongly the violent overthrow of the Śaiva by the Vaishṇava faith—of Śaṅkarācārya by Rāmānujācārya.

I am inclined to think that the great rock-cut bas-relief scenes are the oldest of the works of art here.

The pastoral scene in the Kṛishṇa Maṇḍapa seems peculiarly well-suited to the taste of some early Kurumba prince ruling over the herdsmen tribes, who, we have reason to believe, occupied this part of the country in the early centuries of the Christian era. The affability and protecting presence of the two princes, with their wives and attendants, amongst the herdsfolk seem to be exhibited : there is nothing superhuman or frightful about them.

The two other great sculptures of Arjuna's Penance (so called) Nos. 17 and 45, seem to show the superhuman power of the ascetic whose austerities have called up the divine (four-armed) being, apparently the god Śiva standing in approval by the side of the devotee, who has thus proved himself superior to the rest of creation, celestial as well as terrestrial, all of whom are presented, as in a vision, trooping to the worship of the earth-born Nāga deities who are issuing from the bowels of the rock or from the depths of the infernal regions.

The smaller tableaux in the caves introduce Śiva "at home" in Kailāsa with his family and attendant deities; and Viṣṇu is portrayed as Nārāyaṇa, and in several of his avatāras, descents or incarnations.

Although the monolithic shrines, the caves, and the built temples differ from one another considerably, they all have a good deal in common, and belong, I should say, to but one architectural style.

The shrine cell is much the same in all, and so is the general plan of the roof, and the ornamental treatment of the roof and wall-panels. The great majority of the shrine cells appear to have contained the *līṅga* accompanied by a tableau cut in relief on the panel of the back wall as an altar-piece. Nearly all the *līṅgas* and some of the altar-pieces have been removed or destroyed, but one or more of each has been found in one or more examples in each class.

Scarcely any of the monolithic shrines have been finished, one or two indeed have but just been begun ; and the same may be said of the excavated shrines ; but the built or *structural* temples appear to have been more nearly, if not quite finished.

It would seem as if the original sculptors and stone-cutters who executed the bas-reliefs, the monoliths and the caves, had passed away before their work was finished, leaving the temples without the shrine cells which they were intended to hold and therefore useless. For the devotional services for which they were designed, the monoliths were evidently a failure and were abandoned. In their place I suppose that the structural temples (Nos. 6, 8, 34, and 54) were built, and the worship of Śiva extensively performed in conjunction perhaps with that of Viṣṇu, Brahma and the Śaktis.

At some time the Śaiva religion must have suffered a total eclipse, due perhaps to its innate corruption and the influence of such reformers as Rāmānujācārya, but more probably to the northern Vaiṣṇava sect that came in with the conquerors from Mysore and Teliṅgāna. The *liṅga* was evidently cast out from the shrines, or rooted up for the relics or treasure supposed to have been buried under it.

The Vaiṣṇava heroes and avatāras were recognized and adopted by the new sect. A temple enclosure was built round the Varāhasvāmī rock sculpture and shrine No. 35, and a pillared hall constructed in front of the great pastoral scene found carved on the open rock, named the Kṛishṇa Maṇḍapa (No. 15), the style of which, although the lion-based pillars have been reproduced, is evidently very different and more modern than that of the adjacent shrines.

With the exception perhaps of No. 25, the Varāhasvāmī Maṇḍapa (excavation), the Rāmānuja Maṇḍapa appears to have been the most finished cave of all, and probably contained the most marked signs of Śaiva predominance. Some-

thing of this kind might account for the destruction of its interior. Its central shrine and two adjacent cells have been cut out and thrown into one chamber ; the three large sculptured tableaux have been carefully obliterated or “dished,” together with the dvārapāl warders ; the *caṅkha* and *cakra* of Viṣṇu have been cut on the end walls of the terrace, and a colonnade, the commencement of a pillared hall like that built in front of the pastoral bas-relief No. 15, begun ; but the scrap of Śaiva inscription has been allowed to remain intact on the floor.

Against the theory of the total overthrow and expulsion of Śiva, however, we find that many of the tableaux containing Śiva as the principal figure, are still in their original sites apparently, although the liṅga that seems to have been their invariable accompaniment has been removed ; and in one instance, the Atiraṇacaṇḍeśvara at Śāluvaṅkuppam No. 58, we see three copies of the Śiva tableau and three liṅgas still *in situ* with them, all in one shrine. These caves may be due to a Śaiva revival, and in the latter instance (No. 58), the shrine with its emblems and altar-pieces may have escaped spoliation from having been covered by the sand, the level of which is now about as high as the roof of the maṇḍapa, which can only be entered by first excavating the flood of sand which pours in and buries the whole with every sea-breeze in the dry season.

The Tamil inscriptions (Nos. 35, 60, and 61) of the eleventh, twelfth, and thirteenth centuries, show that the Vaiṣṇava sect was dominant during that period (1073 to 1235 A.D.)

The older Sanskrit inscriptions show conclusively that Śiva was supreme here in the time of the Pallavas, who are known from other sources to have ruled this part of the country from Kāñci (Conjeveram), of which Māmallapuram is said to have been the seaport during the early centuries of the

Christian era and until supplanted by the Coḷa domination in the eighth century.

The Coḷa princes seem to have been mostly Śaivas and much addicted to building temples and granting endowments, so that they may have left these shrines unmolested ; but the city probably declined in favour of the Coḷa seaport to the southward ; the sand of the sea-shore soon overflowed the remains of the town and choked the mouth of the harbour, consigning the scene of Pallava wealth, grandeur, and piety to long-lasting oblivion.

The Vaiṣṇavas appear to have remained in the ascendant down to the present day, for they still occupy the Varāhasvāmī cave temple No. 35, and keep up the services of their sect there.

Amongst the older parts of No. 13, the so-called modern Viṣṇu temple, we might expect to find some work as old as the first invasion of northerners in the eleventh century ; but the great bulk of the work, and the foundations of the Rāyala Gopuram (No. 27), are more probably due to the patronage of the Vijayanagara kings in the sixteenth century.

The temple is called Sthalaśayana, after the god Viṣṇu as Sthalaśāyī (the *local recumbent* deity) ; and it contains an image of Viṣṇu like that which lies in the little flat-roofed cell attached to the west wall of the Shore temple (No. 6).

In the Sthalapurāṇa the temple is attributed to the king Mallādhipa or Satānanda (also called Malleśvara, Carr, pp. 178, 180, 181), who is stated to have built a wall with a Gopura round the seven-pinnacled Vimāna (shrine), which with the shining image fell from Vaiṣṇu's heaven) and is called Ānanda-nilayam. The goddess here is called Nilamaṅgaināciyār (= 'Earth Maiden Lady,' or ? 'Maid-of-the-soil' goddess).

The observation may perhaps be worth noting that the

image of Vishṇu lies in the temple with head to the south and feet to the north, and is so represented on the gateway tower over the inner entrance, and the image in the Shore temple is in precisely the same position. I believe that many of the South Indian Hindu caste folk bury (or burn) their dead laid out in this way—head to south and feet to north—especially the lower castes or casteless tribes. The burial customs of the outcaste peoples would seem to be well worthy of collection and record.

The recumbent images of Vishṇu here (and elsewhere) may be a reminiscence of the old Buddhist and Jaina credence about Nirvāṇa, *Mukti*, the vulgar *Moksham* or final release obtained by the saints of old; and the Vaishṇava system is said to be the modern descendant and inheritor of the Jaina faith.

APPENDIX.

DR. BURNELL ON THE INSCRIPTIONS.

The following appears to be the substance of Dr. Burnell's evidence regarding the inscriptions at the Seven Pagodas as published in his *S. I. Palæography* (2nd Edition, 1878), so far as I can make it out:—

Page 37. “. . . . the original work is to be attributed to Jains of about the fifth century, and the alphabet of the inscriptions corresponds with this date.”

Page 38. “The inscriptions are not dated; the earlier ones (which consist of a few words in explanation of the figures on the so-called *rathas*) are in a character very near to the Veṅgi (Pl. I, c. fourth century A.D.) and early Cēra (? Cēra, P. II, 467 A.D.), but distinguished from them by a few important variations,” showing an approach to the Grantha form. “These and two Pallava inscriptions” (one of which is dated about 467 A.D., page 34) “represent the earlier stage of development,” p. 38.

But the explanatory labels over the figures on the *ratha* are not all of one date, one of them on the eastern face and third storey being in the character of the Kāmarāja or Gaṇeśa temple inscription put about 700 A.D. (p. 39). Again, quoting from p. 38, “A still further development in the direction of the Grantha forms is to be found in the inscription on a monolith, now used as a Gaṇeśa temple; and also again in a still more developed form at Śāluvaṅkuppam.

“There can be no doubt that these inscriptions must be put at about 700 A.D.”

The inscriptions here referred to are those of Kāmarāja No. 24, and of Atiraṇaçaṇḍa Pallava No. 58.

“The first four lines of the Gaṇeśa temple inscription (No. 24) describe Śiva in a way that was only possible after Śaṅkara's

development of the Vedānta, 650 to 700 A.D. ; and as the rest states that a Pallava king built “ this abode of Śambhu,” the inscription cannot be later than the eighth century ;” p. 39. “ The assigned date of this inscription (700 A.D.) is also corroborated by a transcript of some verses selected from it, with additions, at Śāluvaṅkuppam in Nāgarī of precisely the eighth or ninth century, accompanied by a transcript in old Grantha very near to that of the eleventh century (? 1038 A.D., p. 44). This inscription must have been given in these two characters for the benefit of pilgrims from the north.”

I do not clearly understand what Dr. Burnell's somewhat scattered remarks precisely convey ; at page 12 I find, “ At Amarāvati and at Seven Pagodas are inscriptions of a few words each ” “ in a character precisely similar to that used in the cave inscriptions near Bombay, which latter belong to the first century B.C. and the first and second A.D. ;” and in note 4 to the same page (12), “ Hiouen Thsang seems to have considered Conjeveram to have been the southern limit of Indian Buddhism in his day (c. 640 A.D.). As the Brahmanical system of Śāṅkara sprung (*sic*) up in the next half century, this must have been near the most flourishing period of South Indian Buddhism.” And in a foot-note, No. 3, at bottom of page 40, “ In the time of Kulottuṅga Cola, 1128 (to ? 1158), there must have been a great many Buddhists in Tanjore, as Parākrama Bāhu (King of Ceylon, 1153–1186) fetched his priest from there according to the Mahavaṃso.”

The following is also a quotation from p. 37 :—“ There can be no question that the caves and monoliths at Seven Pagodas and in the neighbourhood are of Buddhist-Jain origin ; the sculptures on the so-called *rathas* (monoliths) show (if anything at all) a slight admixture of Śaiva notions, such as appear in the later Buddhism. Over several of the figures are, however, Vaiṣṇava names (*e.g.*, Śrī Narasimha) which ill-agree with the representations ” “ But as the caves now exist, they have been subsequently extended and adapted to the worship of Śiva, or to the combined worship of Viṣṇu and Śiva in the same temple.” “ It is to the period of the adaptation that the dedicatory inscrip-

tion belongs" (about 700 A.D.): "according to the C. Basava Purāṇa the first līṅga was found in Kerikāla Coḷa's time or c. 950 A.D." "and it is now certain that the līṅga worship is an importation from the North into South India in comparatively recent times."—Note 2, p. 37.

MR. C. S. CROLE.

Mr. C. S. Crole, of the Madras Civil Service, in the *Chinglepat District Manual* (1879) has collected the available information about the Seven Pagodas, the true name of which he gives as Māmallapuram or Mallapuri (p. 92). In a short *resumé* at pp. 102, 103 he divides the antiquities into three periods.

1st.—The Rathas and the bas-relief in the Kṛishṇa Maṇḍapa,
"of a date somewhere about the fifth or sixth century."

2nd.—The Aticaṇḍeśvara Maṇḍapa, and some of the fine Śiva carvings, such as the very spirited representation of Durgā on the lion vanquishing Mahishāsura, which "may be safely placed between the seventh and tenth centuries."

3rd.—"The period of the rise and ascendancy of the Viṣṇu faith, represented at its best by the Boar incarnation, and dating from the latter part of the eleventh century up to Sinhama Nayuḍu's time, or the beginning of the seventeenth century."

"The Shore temple was doubtless a creation of the second of these epochs" (seventh to tenth centuries).

At pp. 24, 25, and 26 he states that the worship of the līṅgam "had spread over all India by the beginning of the third century A.D. as a representation of Śiva." "The first evidence of communication with the north is contained in the gigantic bas-relief at the Seven Pagodas, which appears to be an illustrated tract in stone on the merits of Buddhism. This may belong to a period anterior to the Christian era."

"We know that during the fifth century Conjeveram was sacked by one of the Cālukyan dynasty, whose continued hold

on the district is evidenced by the carving on the raths, and probably elsewhere, at the Seven Pagodas."

Mr. Crole appears to build upon an inscription of Pulikesi I of 489 A.D. (p. 136), which seems to have been a forgery of later date (Burnell, S.I.P., p. 18), but adds: "There is however no doubt of the monoliths and some, at all events, of the carvings at the Seven Pagodas having been executed under his auspices." (*Ct. Dist. Man.* p. 136.)

SIR WALTER ELLIOT.

The following extracts are from Sir Walter Elliot's paper as given by Carr at pp. 119-142.

"The era of the oldest Tamil inscription is clearly fixed at the latter part of the eleventh century," p. 140.

This refers to the rock-cut inscription at the Varāhasvāmī (Vishṇu) Temple (No. 35) in the Grantha Tamil character.

At page 126, from the identification of the king's name, in the 37th year of whose reign it is dated, the rock inscription (No. 60) at Śāluvaṅkuppam is put at 1116 A.D., and this date (or rather 1115 A.D.) is confirmed (p. 140) by the identification of the king mentioned in the previous (No. 35) inscription.

At pages 124, 125, the latest Tamil inscription, that at the neighbouring hamlet of Pavaḷakkāran Cāvaḍi, is given, containing its own date, the Śālivāhana year 1157 (= 1235 A.D.) All these Tamil inscriptions are in the same character (Grantha Tamil). Further, at page 141, referring to the earliest of these (No. 35 of 1073), "it is evident from the facts of the grant to Āḷvār in the temple of Parameśvara Mahāvarāha Vishṇu, and the subsequent mention of the temple of Māmallai Perumāḷ, that the more modern creed of the Vaishṇava sect had been established and that of the Śaiva subverted." In this inscription the place is called "Jananāthapura which is Māmallapura."

The invocation of Adisaṇḍeśvar as the tutelary deity of the locality in the Tamil rock inscription (No. 60) at Śāluvaṅkuppam, situate only 100 yards from the Atiraṇacaṇḍa Pallava Maṇḍapa (excavation No. 58), proves that it was posterior to the latter (p. 126).

Regarding the olders works, &c., Sir Walter Elliot writes thus (Carr, p. 127):— “It may be inferred that the rulers of Māmallapura were in a state of independence in the sixth and beginning of seventh centuries.” “We know from other sources that the Coḷa kings reduced Toṇḍamaṇḍalam about the seventh century The excavations therefore could not well have been made later than the sixth century, neither could they have been much earlier, for the forms of the letters, both Grantha and Nāgarī, do not justify the supposition of a higher antiquity.” (See Carr, p. 127.)

CHAPTER IV.

DESCRIPTIVE NOTES OF THE SEVEN PAGODAS.

AFTER many years' employment in the Madras Presidency I was in 1880 at last able to visit THE SEVEN PAGODAS, and to spend the mornings and evenings of three days in examining the rock-cut antiquities there.

The following pages are the result of notes made on the spot during my stay at the Seven Pagodas and of a subsequent examination of the photographs I have been able to get, combined with a partial re-perusal of Carr's book. The latter being now out of print I have incorporated some of the scanty information contained in the accounts of Lieutenant Braddock and Kāvali Lakshmayya, and hope that the guide which I drew up for my own use, in the hope of a second and more leisurely visit, may prove useful to others.

There is a great deal more of the greatest interest to be said about the place, and I am only too well aware how little justice I have done to these beautiful and unique specimens of ancient art in what I have now said. I have no doubt that careful observation, and the patient investigation of some competent oriental scholar, would elucidate many facts concerning the history of the former inhabitants of the south of India and their religion and rulers, which would well repay the requisite labour.

PIḌĀRI AMMAN TEMPLE.

(*Madras Survey Map No. 1.*)

1. About 170 yards east from the East Coast Canal landing place, and where the foot-path to the village of Māvalivaram and to the north end of the rocks leaves the cart-track, a small temple

is met consisting of a verandah or portico open to the east in front of a small shrine of Piḍāri, a village goddess; and a few yards in front of the temple stands a *balipīṭham* or sacrificial altar, with a stone lion couchant. Kāvali Lakshmayya, para. 29, p. 214, of Carr's book, mentions the "liṅgam and yoni" here. Where there is a liṅgam, the emblem of Śiva, one would expect to find the bull, Nandī his vehicle, instead of the lion. But the bull is very rare throughout this locality except at the shore temple (No. 6), where one bull may be seen on the roof of the smaller shrine over the entrance, west, and many more fallen and scattered about, or cast into the sea to help form the breakwater which protects the site from the wash of the sea.

PIḌĀRI-KULAM QUARRY RATHA MONOLITH (NORTH).

2. A hundred yards south-south-west of the last (No. 1), near the stone quarry, stands a small monolithic shrine only blocked out below and not quite finished above. In style it much resembles those at the extreme south end of the locality: only it opens and faces to the east, whereas they open to the west except one No. 41, which faces and opens to the south.

It was designed for a cubical cell with a small portico projection, roofed in steps pyramidally, and has two upper floors or cell-terraces with ornamented cornices and balustrade ornament for each terrace as usual here. The horse-shoe gable ornaments of the cornice contain human faces or masks, whilst it is not clear what those of the domical cell roofs and of the octagonal dome itself contained; probably the little curved projecting block that elsewhere caps the similar square vertical shafts which have been left standing under each such hood or dormer.²

The dome is octagonal, taller than a semi-diameter, and has raised ornamental ribs at the angles, with a flat-spiked dormer

² These dormers or curved gable ornaments were much used by the Buddhists, and are diminutive copies of the façades of their Caitya Halls, or Church-like temple caves. They seem to have derived the design from some common form of the front or gable end of a pre-existing temple or house built of timber and roofed with thatch or plaster. They are sometimes called Caitya window ornaments.

in each face surrounded by scroll work carved round the base of the dome, which has a considerable splay, bell-fashion. There is no crowning ornament to the dome, or to any of the little domical cells that adorn the two terraces of the roof.

Immediately under the eaves of the dome there is a row of dwarfs (?) in high relief, and two bas-relief human figures in the two panels of the middle storey facing the east, one on each side of the centre, where there was probably to be an image or emblem to which these figures have regard and incline. Their inner hands are raised, and they wear tallish caps with big flaps, large earrings, a necklace and sacred thread.

3. Only a few yards to the south-south-west of the last (No. 2) stands a very similar unfinished monolithic shrine cut out of an adjacent boulder, pieces of which have been split off below by modern-looking wedge-holes.

The portico and entrance of this shrine are to the north, but the lower storey or ground floor is only roughly blocked out. The centre of the east wall is occupied by a panel, probably intended to be excavated into a niche or recess between pilasters, not half-pilasters as in the wall-niches of Draupadī's Ratha (No. 37) which it in many respects resembles, and as in those of the Olakkannēśvara temple (No. 34). The style of the pilasters is the same as those of the former, and so is the very florid scroll and the drop-bracket (?) over the centre of the niche. The cornices are adorned with semi-circular hoods or facets containing a human face with bushy head of hair in each.

The corresponding dormers of the domical cell roofs contain a semi-circular niche with some object I failed to note. Some human figures have been begun on the panels of the middle storey. The dome is quadrangular with raised ribs or edges at the angles and scrolls. The four dormers contain the projecting (canopy?) block under a semi-circular niche or recess as usual.

4. About 160 yards further south stands the Valaiyaṅkuṭṭai Ratha a monolithic shrine, which somewhat resembles the foregoing (Nos. 2 and 3), but is slightly more finished and more elaborate in style.

In plan it is square with the shallow portico on the east side. It has two upper floors of domical cells and a rather squat

quadrangular dome at top, slightly splayed at the base and ornamented like the rest with griffin balustrade railings surrounding the cell terraces, just above their continuous, all round, cornices as usual. Only in this instance instead of numerous (three or four pairs of) horse-shoe facets containing the human faces, there are only two single horse-shoe niches to each cornice, on each side of the shrine, and these niches contain the curved projecting (canopy ?) block under a semi-circular recess, such as in the other monolithic shrines is usually restricted to the roof-dormers only.

This peculiarity is also to be observed in the cornice all round the basement of the Olakkannēśvara temple (No. 34).

Another peculiarity, in which this (No. 4) resembles the latter (No. 34), is that two of the wall-panels or niches, one on each side of the centre, stand forward from the wall, one underneath each of the horse-shoe niches of the main cornice, and are provided with prominent overhanging hoods or separate cornices of their own.

These projecting-hooded niches on the ground-floor are between pillars of the usual style here and much resemble the central and two end niches on each side of the great waggon-roofed monolith (No. 42).

The middle storey here (No. 4) has projecting cornice-hooded blocks under the horse-shoe niches of the upper continuous cornice, but no pillars have been cut or panels excavated.

The horse-shoe dormers of the dome and their bargeboard edges are shaped and ornamented much like the ends of the Kāmarāja temple (No. 24) and Bhīma's Ratha (No. 42). Attenuated lions-rampant support the main cornice at the angles, rearing themselves obliquely between the rectangular brackets.

On the whole this fragment would seem well worth study and minute delineation.

Madras Survey Map 21. No. 4, p. 77, of Braddock ; para. 3, p. 200, of Kāvalilakshmayya (called on the spot Nanda Gopāl-pālaiyam or Kapālīśvara).

21. This is a triple excavation close to the Gopī's (or Draupadī's) churn (No. 20), and is the first met with on arriving at the north

end of the main group of rocks by the foot-path to the village from the Piḍāri temple near the canal landing place.

The façade is nearly finished; it faces the west-north-west, and consists of a projecting shrine-cell in the centre and two slightly withdrawn cells, one on each side, under a prominent convex cornice ornamented with the usual upright horse-shoe facets capped by a flat spike and having a human face carved in relief within the horse-shoe. Above the cornice is a row of ornamental domical cell-ornaments, three over each shrine, an oblong waggon-roofed one between two with square domes, all of them furnished with *Kalaśam* or vase-shaped *finials*, besides the flat spikes or horns of the gable ends of the oblong cells, the whole of which remain in good preservation and give an air of perfection to the design which most of the other excavations and the monoliths want.

The angles of the front wall below the cornice are carved to represent slender square pillars with a slight neck, and a bulging capital with plain abacus and indented brackets, all in the prevalent style of the locality. The shrine cells are on a raised floor or basement, and each approached by a narrow flight of steps springing from a plain semi-circular (door mat or) *moonstone*. *Dvārapāl* (warders) fill the narrow niches or recessed panels between the pillars at the angles and the square half-pillars that line the doorways. Those of the central shrine are ordinary men scantily clad and armed with spear and club. The back wall of the central shrine has a bas-relief of a four-armed figure standing in the centre with a tall cap on and arrayed in a necklace and sundry belts and bands. Two unarmed attendants, men, are in a half-kneeling position below, whilst two celestial attendants float in mid air above, one on each side. All wear tall caps and have large ears and earrings.

The extra hands of the god bear his proper emblems, but are not clear enough to be easily recognized. There is a vacant square *lingam*-socket in the centre, two doorpost sockets above and boltholes in the floor below.

Two men with long beards, tall caps and long shirted coats (or petticoats), occupy the place of warders in the paneled niches,

one on either side of the doorway of the northernmost cell, which is approached by a small flight of semi-circular steps. A four-armed figure is carved on the back wall wearing a double necklace of Rudrākshan beads hanging down over each arm to the elbow nearly. The upright arm bears a disc or ring, the left something like a ball. As in the central cell there are two half-kneeling men attending below, and two dwarfs in mid air.

The southern of these three shrine-cells is much like the others, having a four-armed figure carved on the back wall or panel, with two half-kneeling attendants below having their inner hands open and raised, and two celestial attendants above. The Dvārapāl (warders) stand with their forefingers raised. A row of birds adorns this façade, immediately under the cornice.

Adjoining the three-cell façade, the face of the rock has been carved to represent the eight-armed figure of Durgā standing on the head of the buffalo-headed monster Mahishāsura. The goddess wears a tall tōpi and big round earrings, and carries weapons and emblems in her six extra hands. There is no shrine-cell or deep recess here, but the goddess is carved in relief on a shallow panel between mouldings and under a highly ornamental scroll, very like those of Draupadī's Ratha (No. 37), of the Piḍārikulam Ratha S. (No. 3), and of the Olakkanneśvara Temple (No. 34.)

"The Gaṇeśa Temple." No. 8, p. 79, Braddock; and para. 6, p. 200, of *Kāvalilakshmayya*.

24. From the old Pallava inscription on it, this should be called the Kāmarāja Temple. Arjuna's Ratha, or the Gaṇeśa temple as it is now mostly called, is at the north end of the eastern ridge of the main group of rocks, and only 40 or 50 yards north-west from the great bas-relief of Arjuna's penance No. 17. It is an oblong monolithic shrine with a waggon-roof, having two gable-end façades with curved bargeboards, &c., like the great waggon-roofed Ratha of Bhīma (No. 42) at the south end of the locality. In size it is much smaller, being only 20 feet long north-south 11 feet 6 inches wide and 28 feet high.

Besides the basement it has two upper stories, or cell terraces, the same as the Ratha of Nakula (No. 39) and of Sahadeva (No. 41), and the style is generally the same as that of all the monoliths.

Although some distance from the sea it only opens to the west, notwithstanding a very confined prospect on that side, as the rock rises precipitously in front of it at a short distance.

This temple is finished or very nearly so, and is supposed to present a fair idea of the outward form which a certain class of Buddhist halls or porticos presented, of which no structural specimens are known to survive; but of their original interiors we may form a good notion from the great Buddhist cave excavations near Bombay.

The descriptions given of No. 39, Nakula's Ratha, and of No. 42, Bhīma's Ratha, at the south end of the place, will answer for this monolith also very nearly. It resembles the former in having a projecting portico crowned by a prominent ornamented cornice and row of domical cells open to the west, and in having two storeys of cell terraces; but it resembles No. 42 (Bhīma's Ratha) much more, in being oblong and having a waggon-roof with two gable-end façades (north and south) under curved bargeboards highly ornamented and in having dormer window projections in the slope of the roof, and a long horizontal ridge surmounted by a row of (9) *kalaśams*, here all remaining, but in the other (18) all wanting.

One or two of these *kalaśams* fortunately remain nearly perfect, for scarcely a single one is to be seen throughout the other monoliths. The only ones I remember are on the summits of the tall domed *stelæ* or *dagoba*-ornaments in the façades of Bhīma's (42), and of Sahadeva's or the apsidal Ratha (No. 41), and they are just like these. The modern pattern of *kalaśam* is usually a ball or globe with a narrow stalk below, and a fine spike or finial above; and the ball is often flat or squat. These old-fashioned ones are quite different, the neck below is very thick and solid supporting a pine-apple vase, gradually tapering up to the point which is rather blunt with a rim, on the whole rather like a plain glass water-bottle, or decanter, with a thickish lip and a large

tall cork or stopple. The kalaśam-finials of the shore temple (No. 6) are rather like these, but appear to be more globular, and the stopple instead of being short and blunt at top tapers up to a tall pointed spike. The shape of the kalaśam may be some test of age or date. They resemble so many plain long-necked globular goblets or bottles, each standing in a double splayed circular ring or pot stand, such as those usually found in the South Indian pottery interments.



Another interesting feature of this shrine is the crowning ornament over the curved bargeboards at the ends of the waggon-roof, and over those of the (3) horse-shoe dormers on each side of the roof, which is a *trisūla* or trident emblem, springing from the top of a human head and neck, that is, having the thick base of the central shaft below the tri-furcation, carved in front to represent a human face and neck, very like those that occupy the upright horse-shoe facets that adorn the projecting cornices.

I noticed no sign of this *trisūl* ornament on the great waggon-roofed Ratha of Bhīma (No. 42) or elsewhere. Otherwise the ornaments and style of the pillars are the same, the roof dormers in particular containing the peculiar solid curved (hood-like) projections between and below griffin-capped baluster-brackets in both cases.

One other point struck me as peculiar in the Kāmarāja monolith. The domical top of the dagoba-like *stèle* in the centre of the north and south gable-end façades is covered or hooded by a projecting canopy, something after the manner of the solid curved projections in the roof dormers just mentioned, only it has a transverse arched opening in the centre to admit the top of the dagoba-ornament, covered by the usual dormer with curved bargeboards, and surmounted by a diminutive *trisūl*-capped human head.

With regard to the central ornament in the north and south façades of this shrine, it may be remarked that the cylindrical part of the dome-topped pillar is so long or tall that at first sight one might almost take it for the Śaiva *liṅgam*.

The whole design of the temple at first sight strongly recalled to me the Lycian rock-cut tombs, figured on pages 204, 205 of Fergusson's *Architecture*, Volume I (1865), and its central ornament, in like manner, recalled the double-storeyed cylindrical (?) tomb monument at Amrith, given at page 208. It also recalled the "Surkh Minar" at Cabul, figured at page 56 of Fergusson's *History of Indian and Eastern Architecture* (1876). The somewhat similar façade ornaments of the great waggon-roofed monolith of Bhīma (No. 42), and of the apsidal Ratha (No. 41), seem to be only single, and to surmount a cell or shrine-niche to which they merely form a bell-domed roof.

The likeness to the liṅgam occurred to me the more readily perhaps from my having only recently visited the great liṅgam at Paḍavēḍu near Ārani, standing on the hillock at the entrance of the valley and known as Liṅga-kunnu.

At page 167 of his *History of Indian and Eastern Architecture* (1876), Mr. Fergusson favours the idea that the liṅgam of Śiva is originally a miniature dagoba. In the great waggon-roofed monolith the domed pillar which I have called a dagoba ornament surmounts a cell or shrine-niche. Here it would rather seem to be the object of veneration itself.³

The basement of this monolithic temple is about 20 feet long north south and 11' 6" wide; and on the north, east and south sides is very plain, being merely a flat wall ornamented with simple semi-octagonal pillars or pilasters with slight necks, flattened capitals, and plain brackets, &c., of the prevalent style here.

There is a portico or projecting verandah all along the west side, and with the exception of a narrow panel at each end containing a human dvārapāl warder, wearing a tall cap and armed with a club or mace, the greater part of the west front is open, but broken into three bays by a couple of sixteen-sided

³ In the Lahore Museum is a tall cylindrical pier with spheroidal top just like the liṅgam only having a human face standing out in relief from the shaft, and affording a plain hint of one stage of the transmutation of the Buddhist stūpa into the modern lingam or Mahādeo stone. This significant and unique relic was exhumed, I think, near Jhelam in the Panjāb.

pillars with lion bases between a couple of square demi-pillars or pilasters, similarly carved into the representation of the griffin or lion so common here in the porticos or verandahs of the principal monolithic shrines, and also in the principal excavations. One slight peculiarity may be noted here, viz., that these lion-based pillars of the monolithic shrines have the usual neck and squashed bulging capital, but no abacus, or square tabular slab, between the bulge and the superposed scroll-ended bracket, whereas those in the caves or excavated shrines have a very fine abacus immediately above the bulge and below the bracket.

The verandah is very plain and narrow, and the entrance into the inner shrine or cell the same.

The floor behind the centre of the cell has a cubical hole or socket, as if for a *liṅgam* of which however there is nothing left; but in 1797-98 Mr. Goldingham described a *liṅgam* as still there. An image of Gaṇeśa or Pillaiyār (the honorable son of Śiva) has been recently set up and is now worshipped and the shrine is now called the Gaṇeśa Temple.

A Sanskrit inscription in the Pallava or ancient Grantha character of the sixth century (or about 700 A.D.) is cut on the south half of the verandah wall facing west (pl. XIV, and pages 57, 58, and 221 of Carr), in which it is stated that Kāmarāja, lord of the Pallavas, made this temple in honour of Śiva.⁴ On the roof of the cell and of the verandah the remains of painted patterns are to be seen, as also in the neighbouring Varāha-Maṇḍapa excavation (No. 25) and others. From some slight remains of brickwork on each side of the portico opening, it would seem that masonry walls had been run out so as to form an outer enclosure.

Immediately under the cornice there is a string course or frieze of dwarfs, but without the roll-ornament. The prominent cornice has a single convex curvature and projects boldly beyond the walls below it. It is continuous all round the shrine, but,

⁴ Below this inscription is the outline of a building having a ridge roof with *kalāṣam* ornaments, and containing something like a *liṅgam* in front of an altar; under a rosette, perhaps intended to represent "this abode of Śambhu."

except on the west side or front, it is broken into parts, each embracing a pair of the pilasters and brackets.

Immediately above the cornice, which is ornamented as usual with the hooded medallions or horse-shoe facets each containing a human face or mask capped by the curved bargeboards with flat spike or horn, is the first terrace of domical cell ornaments, which are square at the angles, and oblong or waggon-roofed between, with the usual covered passage joining them.

The row of (simulated) cells over the portico is rather lower than those round the other three sides of the shrine. The ornamentation of the lower part of the row of cells somewhat resembles a continuous railing or balustrade with griffins' heads in pairs facing one another in front of the cells, and diamond or lozenge ornaments on the intermediate parts of the railing before the corridors or covered passage. In places a pair of elephants have been carved with their trunks intertwined, and a pair of birds with their bills locked together. The ornamental carving is by no means complete, but a great deal has been designed and a considerable amount accomplished.

The scroll work on the roof and on the domical cells is very florid, especially on the lower end of the bargeboards; their upper parts are ornamented with rosettes and garlands.

The walls of the upper storey (first floor) are divided by pairs of rectangular pilasters into narrow panels and wide intermediate spaces; all of them quite plain, but probably designed to contain ornamental sculpture, such for instance as the corresponding narrow niches contain under the roof-dormers of the great waggon-roofed monolith (No. 42). The upper cornice and the floor above it (the second terrace), with its simulated cells, pilasters, panels, &c., is just like the last only smaller, and instead of the oblong cell in the centre of the north and south façades below, the upper terrace above it is occupied by the semi-circular corniced and domed shaft under its *trīsūl*-capped canopy already described. The round-topped niches separated by griffin-headed baluster-brackets of the façade immediately under the projecting eaves of the waggon-roof exactly resemble those of Bhīma's Ratha (No. 42). A closer and longer inspection of this gem of

ancient Indian architecture would perhaps have revealed much more of an interesting nature had time permitted.

Although the ornamental work is far from complete, the good state of preservation and the completeness of the design render this unique specimen well worth a more thorough study and description than I have met with or been able to give.

THE VARĀHASVĀMI MAṆḌAPA is described at page 81 (No. 9) by Braddock ; and in paragraph 7, page 201, by Kāvalilakshmayya, and figured in plates V to IX (page 50) of Carr's book.

25. This is a very pretty little excavation facing west at the back of the great bas-relief (No. 17), a little south-west of Kāmarāja's shrine, and is nearly finished. It consists of an excavation of three bays between two octagonal pillars of the regular lion-based cave style and two square pilasters, all having the lower half of their shafts carved to represent the usual three-horned lion or griffin prevalent here.

The interior consists of a single verandah or portico 22 feet long or wide (north and south), 11 feet deep (east and west), and 10 feet 6 inches high, having a single shrine cell in the centre projecting into the verandah, with a narrow flight of steps leading up to the doorway, a plain rectangular opening between square half pilasters of the prevailing style. The measures given are extreme.

The shrine cell is vacant, but either once had, or was designed to have, a figure or group sculptured on the back wall, but this was never finished or if finished has been "dished" as in the Rāmānuja Maṇḍapa (No. 48).

There are four narrow niches or panels here, one on each side of the doorway in front, and one on each end of the shrine-projection, containing a two-armed human figure apiece ; the two in front in the altitude of dvārapāl warders enforcing caution or silence by raising the inner hand breast high and extending the forefinger, pointing towards the shrine. They are unarmed and wear a waist-cloth and a pointed cap faced around with several tiers of pointed plates, a necklace, brahmanical thread, bracelets on arm and wrist, and large earrings.

Besides the foregoing there are four large panels containing

Hindu mythological tableaux in bas-relief, one on the back wall of the portico on each side of the projecting shrine, and one on each end wall. They are as follows :—

25-A. On the north end wall, the Varāha Avatāra (Boar incarnation) of Vishṇu (plate V). There is another specimen of this tableau in the Varāhasvāmi Cave temple (No. 35), and one also in a small open shrine in the north-west corner of the Rāja-gopālsvāmi temple at Maṇimaṅgalam.

25-B. The next tableau faces west and represents the Gaja Lakshmī, found so universally in Indian temples from Buddhist times to the present day. The goddess, only two-armed, seated on her lotus throne attended by two nude females on each side, who bring water pots, which two elephants raise in their trunks and empty over her head : (See plate VIII, where the lotus (?) leaves below the throne have not been correctly shown).

25-c. On the verandah wall next south of the projecting shrine Bhadrakālī is represented with four arms standing on a stool under an umbrella canopy with two dwarf figures on each side of her in mid air, and two half-kneeling at her feet, one on each side (see plate VII and compare plate X, No. 1). The goddess bears her emblems in her superhuman hands raised, and wears a tallish head dress, large earrings, a necklace, a band round her breast, a belt and stomacher below the waist, and bangles on her ankles. This recalled vividly the tableau in the shrine of Draupadī's Ratha (No. 37). A lion's head and a deer's (?) are represented in the upper corners, one on each side of the umbrella.

25-D. Next to this last, on the south end wall of the verandah and facing north, is the Vāmana Avatāra of Vishṇu eight-armed with ten other figures in all (plate VI).

In style this excavation approaches nearest to the Rāmānuja Maṇḍapa (No. 48) and to some extent resembles the Yamapurī or Mahishamardinī Maṇḍapa (No. 32). The octagonal shafts of the two pillars are about $4\frac{1}{2}$ diameters high, but the whole height from floor to architrave is nearly $7\frac{1}{2}$ diameters, the bulging capital and fine square tabular abacus being large and separated from the scroll-ended bracket by a cubical block, the same as in

the Yamapurī front pillars, where, however, they exaggerate the attenuated shape they already have. In the Rāmānuja pillars there is neither abacus nor block, but the top of the bulging cushion of the capital almost supports the bracket without any intermediate block at all.

Above the architrave there is a narrow frieze surmounted by a bold projecting convex cornice ornamented by half-a-dozen erect horse-shoe facets, the ornamental carving in which is not clear enough to describe; if faces ever existed they have been dishd. Above and behind the cornice there is a row of three oblong (waggon-roofed) cell ornaments, with two horns, two kalaśams and a spiked horse-shoe dormer to each. Between these cells and a little beyond them at each end a simulated vaulted corridor runs the whole length of the excavation, the parts between the cells being ornamented by two spiked dormers and a kalaśam. The base of the cells and corridor has been carved to represent the usual railing or balustrade. The ornaments do not look like the usual pattern of griffins' heads.

The (nine) horse-shoe dormers on the cells and corridor have the usual curved projecting hood-like block in their centre under an arched niche, which seems here intended to canopy the tall narrow panel cut out of the usual plain shaft or projecting pier which forms so conspicuous a feature under the roof dormers of southernmost (Dharmarāja's Ratha, No. 43). It would seem that it was intended that this plain tall block or projecting pillar should eventually be formed into a tall narrow panel or shallow niche containing a figure carved in bas-relief, as has been done in two domical cells on the left (south) centre of the Pañca Pāṇḍava maṇḍapa (No. 16), and in the more elaborate dormer-capped niches on the great waggon-roofed monolith of Bhīma (No. 42). One other marked architectural feature is noticeable here, namely, the row of little projecting blocks immediately under the eaves of the cell and corridor roof. Something of the kind may be seen in the Rāmānuja Maṇḍapa, but it is not common here. The ceiling of the verandah of this cave is still ornamented with the remains of painted figures. Five of them circular rosettes or wheel patterns and two diamond-shaped

lozenges. This painting does not look very old or antique, and it is more in amount and better preserved than the several other scraps of colour noticed in the other caves or sculptures.

ARJUNA'S PENANCE—THE GREAT BAS-RELIEF.

17. I did not observe this great bas-relief sculpture at all so minutely as I should have desired, but it has been described by Braddock, page 87, by Kāvali Lakshmayya, page 202, by Chambers, page 4, and others.

Immediately below Arjuna a small shrine or temple has been carved which is a miniature of the adjacent monolithic shrines of the place. It consists of a simple cell with a narrow entrance between plain unornamented piers, and has a four-armed image standing within, said to be that of Kṛishṇasvāmi (K.L., p. 203). It has a comparatively large projecting cornice, ornamented on three sides with hooded face medallions, a rail or balustrade course with griffins' heads, and is surmounted by a square dome with three horse-shoe dormers containing the curved block projection, each capped by flat spikes, and a kalāśam finial above all. I cannot say whether the enshrined image is integral and coeval with the shrine, or a more recent addition. There are no steps of approach to this representation of a shrine. A cursory examination does not enable one to make out clearly what is the general idea of the whole design. The scene appears to be laid in the wilderness, from the wild animals and the caves or rocks they issue from or move about amongst. The whole assembly of celestials and terrestrials turns towards the cleft of the rock in its centre, except the emaciated ascetic who is doing penance by standing on his left leg with his right held up and his hands held up high over his head. His face is to the front. (This attitude of penance is to be seen in several other of the figures, particularly in that of a cat just before the big elephant's trunk.)

The central cleft of the rock is, or has been, occupied by Nāga figures. The lowest is a single-headed cobra erect with his hood or neck expanded. Next above is a Nāginī or female Nāga figure, having the figure of a woman down to the waist, and below that the body and tail of a serpent. She has also a triple-

headed snake canopy over her. She has her hands clasped together in front of her waist, and wears a tall head-dress with large ear ornaments. Just above the level of her head may be seen on either hand a couple of Nāga-hooded figures (man and woman). The men having a three or five headed Nāga-hood apiece, and the women but a single one. Both couples, like the rest of the figures, regard the serpent-tailed Nāga figures in the cleft. About the centre of the cleft and just above the Nāginī rises a Nāga, whose upper part above the waist, *i.e.*, just above the serpentine portion, has fallen, but may be seen lying on the ground in front of the sculptured rock. The figure is that of a man with his hands joined in an attitude of prayer or penance, and having a seven-headed snake canopy or hood over his tall head-dress.

These three Nāga figures have been carved on separate stones and then fixed in places prepared for them in the cleft; and from the great remaining portion of the cleft now vacant, I am inclined to think that still another figure was originally designed to occupy the vacancy above. If there were any such figure, the action of the scene might be more intelligible. I could easily imagine a figure of Buddha or a liṅgam, or some such emblem in the position which would naturally be the cynosure of all eyes, and the whole scene might well represent the vision or dream of the ascetic. From the number of superhuman or celestial forms the scene might represent the confines of heaven in which many a couple may be seen as if reclining, each figure with a hand partly raised, as if about to support the head, in the attitude of repose.

The largest human figure is that of a man or god with four arms displaying his emblems and weapons. All the other figures, except the four-armed figure in the shrine, and the wild animals, are only two-armed.

The four-armed god appears to be Śiva from his head-dress, weapons and ornaments.

Under Śiva's left hand stands a dwarf with a hook weapon, or a *chauri* over his right shoulder, and a face or mask with long projecting tusks carved on his stomach or apron.

The next figure but three on Śiva's proper right is a figure of a man who looks as if he were a stone-cutter, holding a long chisel in his left hand, whilst the other (right hand) is raised as if in the act of striking as with a hammer.

At the bottom of the rock between the shrine and the cleft of the rock are two figures next to the simple Nāga, seeming to bring offerings to present to the Nāga divinity; one is clad and carries a vessel on his left shoulder, whilst the other bears a tall spiral article, a little like a candlestick, or a flat-topped stand with a tall spiral stalk.

The animals are elephants, lions, tigers, hippopotamus (?), deer, monkeys, pig, birds, a cat, rats (?), and a tortoise. The attitude and expression of the elephants and of many of the wild animals is very good and natural. One of the leonine animals has an erect head with something like horns, the same as those sculptured on the pillars of the adjacent monoliths and caves.

17½. On the north side of the sculptured part of the rock a flight of steps may be seen leading from the ground level to the terrace of the rock above the sculptures, and beside it the surface of the rock has been cut into a precipitous slide, or smooth slipping way between raised edges, the use of which is not apparent.

A similar flight of steps and slide are to be seen at the Shore temple (No. 6) leading down from the (east) front of the temple to the water.

PAÑCA PĀṆDAVA CAVE. *Braddock's No. 12, p. 92; and para. 10, p. 205, of Kāvāli-Lakshmayya.*

16. This excavation adjoins the rock sculpture of Arjuna's penance No. 17 on the south side.

It consists of a seven-bayed excavation, 47 feet wide, north-south, and 10 feet high, supported by rows of pillars standing about 6 feet apart, the shaft portion of each having a diameter of about one-sixth its height.

In plan it may be described as having five rows of six piers each

running north and south, the width of the excavation ; but the nine central spaces at the back (*i.e.*, an area equal to three pillar-spaces wide and three deep) are occupied by a solid unfinished shrine or inner chamber. Otherwise one may say that two aisles have been excavated running round three sides of a central chamber.

The front row consisted of six octagonal lion-based pillars between two square lion-based pilasters, with gradually tapering shafts, supporting the usual squashed cushion capital and fine square tabular abacus, surmounted by a principal transverse bracket with curved indented (or scrolled) ends under the architrave, and also having three ornamental brackets in front of each ; one directly to the front, and two obliquely or diagonally.

These triplet ornamental brackets form the distinctive characteristic of this excavation, (which is also one of the largest caves of the place). They represent three semi-rampant lions or griffins with human riders.

In two or three only have the brackets been at all finished in the rest they have only been blocked out, and where finished the steeds and their riders have been much weather-worn and mutilated.

Above the architraves a bold projecting cornice free from ornament extends the whole length of the excavation (50 feet) in one line without a break and without the usual horse-shoe facets or other ornament.

Above the cornice the solid rock has been cut back, leaving a row of the usual simulated domical cells rising behind a balustrade or railing adorned with the usual griffins' heads and another ornament.

The row of domical cells is broken into a central group of five (three oblong and waggon-roofed, between two square-domed cells), standing in a line somewhat advanced, over the three central bays behind which stands the shrine, and into two wings of two oblong waggon-roofed cells on each side somewhat withdrawn or retired from the line of the five central cells. The oblong cells have the usual pair of horns or flat erect spikes over their gable ends and two *kalāsams* or vase ornaments on the ridge

between them, and the square cells are capped by a single *kalāṣam* or vase-shaped finial.

The roof of each of these domical cells was designed to have a horse-shoe facet containing the projecting curved (? canopy-) block surmounting a sculptured human figure. This design is only completely indicated in the two cells on the left (south) of the centre. The angles of the cells have been carved to represent lions (or griffins) rampant facing outwards obliquely and as if supporting the eaves of the roof at the corners, as in the Olakkannēśvara (No. 34), and the shore temple No. 6. The vase finials are rather more graceful and the stopple more pointed and taller than those of the Kāmarāja monolith (No. 24) hard by. In the descriptions published in London (1870) to accompany Captain Lyon's Photographs, in No. 425, this shrine is stated to contain "a liṅgam and a long inscription," which could not be examined by reason of the store of building materials there.

KRISHṆA MAṆḌAPA. (*No. 13, p. 92, of Braddock; and para. 13, p. 205, of Kāvali Lakshmayya*).

15. This structure is at the south-west corner or right rear of the large modern temple of Viṣṇu and some 30 yards south of the Pañca Pāṇḍava cave facing the east. It consists of a covered court nearly 50' × 30' and 12 feet high built of cut-stone throughout, the roof being supported by three rows of columns, four in each row, spaced 9 feet apart. The pilasters at each end of the front row are plain structural piers and not monoliths like the twelve free standing columns.

The back (west) and the ends (north and south) of the maṇḍapa are formed by the rock, which has been excavated nearly 30 feet in depth from the front until a sufficient height was obtained, and the whole of the interior thus formed has been sculptured in *bas-relief* into a great pastoral scene, the abode of cowherds with their women and children, many of them busy at their wonted avocation. The principal human figures however seem to be two princes with their wives and attendants, who

appear to have just visited or taken shelter in the (? cave) dwelling place of the cowherds.

The two princes are of a gigantic size compared with the herdsmen, and they wear tall head-dresses covered with ornamental plates or coronals.

They wear earrings, necklace, armlets and bracelets, a waist-cloth and the sacred thread, one of them a single and the other a double thread. Both are unarmed and free from superhuman limbs and divine or mythological emblems. Their women with one exception appear nude, but with elaborate head-dresses and ornaments. The common men and women of the place seem to be clad in a waist-cloth and turband.

The four front columns of this maṇḍapa have the lion bases, but they seem to have lost the central horn or nearly so. The shaft including the lion base is nine diameters high, or ten altogether including the bracket. Above the lions they are 16-sided for $3\frac{1}{2}$ diameters, then octagonal for a few niches and square for about one diameter at top. There is no neck or bulging capital, but merely a bracket (4 diameters long) between the square top of the shaft and the architrave. In shape the bracket much resembles the prevalent modern Dravidian pattern with recurved drooping ends, and finished by a pretty pointed drop or bud.

The faces of the square head of the shaft and the bracket are ornamented by rosettes, dwarfs, &c.

The architrave is plainly moulded, and there is no cornice, but this part of the design is evidently incomplete.

With regard to the rock-cut sculptures here generally, and especially with reference to the great bas-relief sculptures exposed to the rain and the sea-breezes, it would be worth while cleaning them all carefully and washing them over with an even shade of a single colour throughout and otherwise to prepare them for photography, as by a slight marking the outlines, &c.

Such a course would probably cost very little and be of great value in bringing out the details which are lost by the unequal staining and weathering of the surface.

RĀMĀNUJA MAṆḌAPA.

Described at p. 95 of Carr's Collection by Braddock, No. 17 of his Map, pl. XX, p. 110; also at p. 207, para. 14, of Kāvali Lakshmayya.

48. This is an excavation in the rock about 130 yards south-south-west of the large modern Vaishṇava temple, high up the rock, and facing eastwards. An open colonnade of six plain squared piers about 12 feet high, and 8 feet apart, joined by architraves or stone-cross beams stands in front of the excavation, as if it had been intended to erect a verandah (12 feet in width and height and 48 feet (K.L.) long), as in the Kṛishṇa Maṇḍapa, No. 15, but the intention was never carried out, and it does not appear to have been part of the original design, for the excavation seems to have been complete and well finished without it. A fine projecting cornice has been carved out of the rock overhanging the entrance of the excavation, projecting 2' 4" beyond the outer face of the lion-based piers left standing, cut out of the live rock, of which there are two, octagonal, in the centre, between two square pilasters, forming three openings or bays about 7 feet wide each. The style of these piers and pilasters is the same apparently as that of the rest of the lion-based piers so prevalent in the adjacent excavations and monoliths, but wants the tabular abacus of those in Nos. 25, 16, and 34.

The interior consists of a single chamber about 24 feet long, and originally 7 or 8 feet wide, at the back of which were evidently three cells once, the centre one of which projected forward beyond the two side cells, as in several other similar excavations at the place. But this central cell has been destroyed and cut away so as to blend the three cells into one, thus increasing the depth of the chamber from 8 feet (?) to more than 18 feet. The remains of a sculptured tableau on the back wall or panel of the central cell can be seen, as well as on panels on the north and south end walls of the chamber, all of which have been "dished," so that little or nothing can be made out of the design. All the raised (relief) portions have been cut away roughly to the flat level of the panel; and only small por-

tions of the outlines can be traced by the remains of the original smoothly dressed back ground. About the part of the rock which formed the top or roof and back of the central cell the remains of modern-shaped masons' wedge-holes for splitting away the rock can be seen, and from what remains of the plinth moulding below, and of the projecting cornice above the cells, their position and style can be made out.

The two *dvārapāl* or sculptured warders that occupied the panels or niches, one on each side of the excavation, have been carefully destroyed in a similar way. The south *dvārapāl* seems to have had one or two *Nāga* snakes about him. At each end of the maṇḍapa façade, but within the colonnaded enclosure, the face of the rock has been cut into a dome-covered niche, resembling a small shrine. These have been neatly finished and probably belonged to the original design. They are now (1880) vacant, but in 1803 contained "figures" (Kāv. Lakshmayya, see Carr, p. 207).

The *dvārapāls* of Dharmarāja's Maṇḍapa No. 44 near this have been dished as here, the liṅgam socket is vacant and its three cells empty and Kōnēri S. Cave No. 52 has suffered similarly.

The outer cornice is a prominent feature, of plain convex curvature overhanging and projecting beyond the face of the cave (2' 4") two feet four inches, and is complete throughout the length of the front. It is as if supported by curved wooden-pattern brackets or struts, and is accompanied by a frieze or string-course of dwarfs, bearing the roll ornament which hangs in festoons between them. The outer face is adorned with erect horse-shoe facets as usual. The façade above the cornice is cut to represent a row of five of the usual oblong waggon-roofed cells joined by a corridor or covered passage, with windows (or doorways) closed with screens of fret-work, the stone being perforated or cut deeply in various patterns: one such window-screen for each cell, and two for each intermediate passage. On examining this cell-terrace closely the remains of some coloured plaster was found still adhering to the sculptured rock, the prevailing colour noticed being a dark red ochre, or a reddish

brown, suggesting that the whole façade may have been covered with a thin coating of coloured plaster.

The projecting end-walls of the verandah terrace, or sloping return-walls of the rock left standing at each end of the excavation, have been cut into steps by which access is had to the cell-terrace and top of the colonnade.

On the faces of these return walls the *caṅkha* and *cakra* (couch shell and discus) have been lightly, but clearly, cut facing one another; the *caṅkha* on the proper left or north, the *cakra* on the right or south end of the verandah.

The same Vaishṇava emblems are to be seen similarly flanking the five-celled excavation at the Konēripallam on the west or north-west side of the rock, No. 52 (No. 6 of Braddock, and K.L. 25, pp. 78 and 213 of Carr). There is an inscription on the floor identical in matter with the last part of the inscription on Kāmarāja's, the so-called Gaṇeśa temple (No. 24) and allied to other Śaiva inscriptions in this locality, whence this maṇḍapa would appear to have been formerly devoted to Śiva, and subsequently destroyed and partly converted by Vaishṇavas to their own use.

ARJUNA'S PENANCE. *S. 2nd Edition. Carr, pp. 96 and 208.*

45. About 270 yards south of the large modern Vaishṇava temple (No. 13), the eastern face of the south-easternmost rocks, detached from the main group, has been carved to represent the same or a similar scene as that represented in No. 17, Arjuna's penance, of which this is probably a second version.

Here, as there, there is a large cleft in the rock from top to bottom which has been bridged over near the top, and a single stone of the platform remains, which perhaps formed part of a ceiling or canopy over a niche, traces of which may be seen still.

Some figure or idol would seem to have been set here, to which nearly all the figures, celestial and terrestrial, more or less incline.

Elephants are portrayed climbing the ascent from below on the south side, and many other animals are scattered about, lions and deer prevailing. But troops of birds seem to be the most numerous of the creatures represented.

Here, as in No. 17, two of the highest figures near the cleft are portrayed as if half reclining with a round pillow behind their heads, one on each side, possibly an aureole or glory.

Very many of the figures are in pairs, male and female, and the blank spaces of the rock have been carved to represent something like rocks below, and above, more like clouds with rounded tops.

Here the two principal figures are not near the centre as in No. 17, but on a semi-detached piece of the rock above the south end of the entire sculptured surface. Arjuna, if so it be, stands on the ball of his left foot, with his right drawn up and his hands joined together, palms up, high over his head. His face is turned upward and shows little or no beard. The ears are large, the ribs shown coarsely, and the stomach hollow as if with emaciation. He wears a roll round his waist, a short kilt or petticoat, and the sacred thread.

A four-armed figure of a god (perhaps intended for Śiva, by the small battle-axe emblem in the left upper hand) stands by regarding Arjuna, with his principal (lower) right hand extended horizontally towards him.

The god wears the usual tall *tōpi* or head-dress, the sacred thread, and a scanty waist-band, the loose end of which looks something like a triple-headed snake. He has the usual ornaments on wrists and arms, and very large pendulous ears. There is a dwarf with raised arms in attendance.

In the lowest line of figures several porters with poles and packs may be seen with bare heads or with knobby top-knots like other figures in the lower ranks. In the upper ranks above, taller or pyramidal caps are the fashion, and the men wear the brahmanical thread.

I did not notice any temple or shrine or any Nāga-hooded figures such as are to be seen near the centre of No. 17, but there is a large triangular space including the lower half of the cleft, which is now devoid of sculpture. It might be worth while clearing away the soil or sand from the base of the sculptures, as has been done in the case of No. 17; any lower sculptures would probably be better preserved, and any figures that may have been dethroned from their position in the central cleft might turn up

and reveal the central object which seems wanting to explain the action of the scene, now meaningless.

Some traces of a coating of fine plaster remain to show that at one time perhaps the whole face of the rock was once so coated, possibly a restoration such as may now be seen in the great temple at Rāmeśvaram, where the stone, the same as here, has suffered much by weathering in the briny sea air.⁵

DHARMARĀJA'S MAṆḌAPA.

(?) *Mentioned in Braddock's Account at p. 103 of Carr's Compilation as "a four-pillared finished excavation," and in para. 16, p. 207 (by K.L.), is called Dharmarāja's Maṇḍapa, and stated to be in as good preservation as if just finished.*

44. This is a neat excavation in the rock facing east south-east to the south south-eastmost end of the rocks, 100 yards or so to the south-west of the southern (or 2nd) edition of the "Penance" No.

45. It consists of a double verandah or chamber (21' 6" × 12' 2") supported by four plain piers with plain angular brackets spaced 5 feet apart in two rows, and forming three open bays between plain square pilasters. The outer verandah is nearly 5', and the inner rather more than 7 feet wide.

The back (west) wall is carved to represent the front of a structural building, a single storey (about 9 feet) in height, having a moulded plinth and basement, surmounted by panels, pilasters, and doors leading into three cells, topped by a curved projecting cornice.

The central cell or shrine stands forward a little beyond the flank cells, and has had a pair of dvārapāls, one on each side of the doorway, which however have been destroyed, and the image or lingam, for which there is a hole or socket, removed.

⁵ Many of the sculptured works here, both monolithic and structural, have traces of a coloured coating of fine plaster which may have been part of the original design and not a restoration. The rugged nature of the intractable kind of rock here, would seem to require some such finish. The great temple of Minakshi at Madura has been quite recently treated in this manner, with the most brilliant, if not gaudy effect.

There are no other sculptured figures about this maṇḍapa, but there is an inscription on the south end wall of the outer aisle or verandah, of some 12 lines, each about 4 feet long. The centre cell or shrine is 4' 6" $\times$ 4' 6" and 6' 8" high; the two side cells are each 3' 10" $\times$ 3' 10" and 5' 2" high, and all of them are about 2 feet above the floor level, with a narrow flight of three steps each between plain side or parapet walls, having a plain semi-circular doormat stone or "moon stone" at their foot.

The piers of this excavation are nearly 2 feet (1' 11") square and 7 feet high ($=3\frac{1}{2}$ diameters) below the bracket capitals. Each pier is square in horizontal section to a height of nearly 3 feet, above which it is octagonal for 2' 4", and then a plain square again for 2' up to the bracket.

The height of the verandah is about 9 feet. The brackets are plain cross-beams projecting 1' 2" beyond the shaft of the pier, with their ends sloped up, so as to support the architrave for about $\frac{3}{4}$ of its length, leaving only about 1' 2" unsupported in the centre between their ends.

The whole of this excavation is severely plain and devoid of ornament, and seems to have been complete and well finished, and except for the obliteration of the warders is in perfect preservation, and looks as fresh as if only just made. In style this cave resembles the Koṭikal, No. 50, and the Atira Maṇḍapa No. 58.

THE MAHISHAMARDINĪ MAṆḌAPA OR YAMAPURĪ.

19 of *Braddock*, p. 96 *f* and *para.* 18, p. 208 of *Kāvali Lakshmayya*.

32. According to Braddock this fine excavation is 33 feet long or wide north-south, 17 feet deep and 13 feet high. It is divided into five openings or bays, by five 16-sided tall pillars (the shaft being 9 or 10 diameters) surmounted by squash capitals, with a square abacus, cubical block, and deep unfinished brackets with plain curved ends. The shafts have a slight base, two raised bands left for ornament, and a slightly contracted neck.

The architrave and frieze band is deep but unsculptured, and the cornice with its five pairs of flat-spiked horse-shoe facets

equally unfinished. Five oblong cells above are merely blocked out. The back wall of the interior has been excavated into three cells, the centre of which contains a tableau on the panel of the back wall, of Śiva attended by Viṣṇu and Brahma, all four-armed, with Pārvatī seated on his left under an umbrella, and the child Subrahmaṇya seated between them; all of them in tall head-dresses and full array of ornaments and emblems. The bull (Nandī) crouches in front as a foot-stool for Śiva and Pārvatī. This is perhaps the best specimen of this tableau, which is represented repeatedly, in the caves, monoliths and structural shrines. A hole, in the centre of a circular depression in the floor of this shrine, points to the fact that it once had, or was designed for, a liṅgam.

Immediately in front of the shrine-cell stands a handsome portico supported by two fine lion-based pillars rising from the angles of a stylobate, all in the prevalent style of the locality. The other two cells are vacant now, but the north and south end walls of the outer chamber or portico are sculptured finely, the former (north) representing the mythological fight between the lion-mounted Durgā, and the buffalo-headed giant, Maheshāsura; and the latter (south) Viṣṇu (Nārāyaṇa) asleep on the folds and under the hood of the great serpent Ādiśeṣha. (See plates III and IV). The colossal image of Viṣṇu lying in the Shore temple is a point of connection between this shrine (32) and the Shore temple (No. 6), which is further indicated by there being two or more copies there also of the Śiva tableau (No. 1, plate III) enshrined here.

OLAKKANNEŚVARA TEMPLE.

Īśvara Temple, 34 of *Madras Survey Map*, *Arakkennei* or *Urakkennei Īśvara*, No. 18 and p. 96 of *Braddock*; *Kav. L's Olakkanneśvarasvāmi Temple*, para. 19, p. 210 of *Carr's book*.

34. This temple is built of large stones in cement [like the shore temple (6)], the Chetty's temple (8), and the Mukunda Nāyanār (54), on the highest part of the rocks towards the south end of the group, immediately above (and west of) the Mahishamardini excavation No. 32, about 100 feet above the plain.

It is now a mere shell, having been completely gutted of an inner skin or lining of brickwork, of which a few traces remain, and the debris of the bricks and mortar are spread on the shelves of rock to the south and south-west, and at the base of the rock on the west side, amongst which a lingam stone is to be seen, that may once have stood in its shrine.

This temple is interesting, as it shows the inner and usually concealed side of the outer casing of stone. It displays very rude workmanship, the big stones (running to 6' or 8' long, 2' or 3' high, and one or two thick) are quite undressed or squared except on their outer face and edges, but are set up in a hard concrete, in which whole shells were mixed. One peculiarity is that the masons' splitting holes are rounded or conoidal, whereas they are nowadays made more square or pyramidal.

The door way is to the west in the centre of a shallow portico-projection; the jambs of the entrance are formed by two two-armed Dvārapāl (warders), who face one another (looking north and south), and lean on their spiked maces. They wear tall caps with big pendent flaps, like others to be seen here on the monoliths and excavations.

As elsewhere in this locality traces of a coating of plaster over the sculptured portions are to be seen. The four corners of this temple and the north-west and south-west salient angles of the projecting portico on the west side, are adorned by rampant lions, like those at the Shore temple; the Simha, indeed, is one of the principal sculptured ornaments throughout the "Seven Pagodas," and is common to the monoliths, the excavations, and the structural buildings.

The temple stands upon a basement of rather uncommon form. The bare rock on which it is laid does not seem to have been level, but the foundation stones have been laid upon it as it was, and a flat surface produced by a course or two of large blocks rudely fitted together and dressed on their outer face and upper surface, so as to give a level surface at from 3' to 5' above the live rock, 30' east-west $\times$ 26' north-south. Above this, after a couple of slightly projecting flat courses of small stones, comes a bold projecting cornice of single (convex) curvature

ornamented at intervals of 4 or 5 feet by florid ogee or horse-shoe (? window) facets, each containing (originally) a small curved projecting (hood-shaped) block springing out from the base of a wide semi-circular arch or shallow niche, and flanked by narrow round-headed niches, a style of ornament most common on the oblong waggon-roofed monoliths at this place. The intention of this cornice is not obvious unless the plain basement below it (or the excavation below, No. 32) may be regarded as a lower storey. Except in this instance and in No. 4 the Valaiyan Kuṭṭai Ratha, the use of this curved projecting block is restricted to the roof dormers, the horse-shoe facets of the cornice usually having a human face carved within them.

On the east side, where the rock slopes down most rapidly, the outer stones of the lowest course appear to have slipped out and fallen away, and the vacancy has been partly refilled by a partial under-pinning of very rough brickwork, not at all in keeping with the workmanship and material above. There is no railing ornament or any pilaster to be seen in the basement, and except the carved projecting blocks above the plinth which may have been designed to simulate projecting beam heads, there is scarcely a sign of wooden-pattern anywhere. Above the cornice is a flat terrace or procession path, perhaps 3 or 4 feet wide, within which rises the plinth and superstructure.

The measurements of the temple given by Braddock (see Carr, page 96) are 22' $\times$ 16' and 16 feet high, that would be about a cube of 16 feet for the ground-floor story of the shrine, and a 6-feet projection on the west side for portico or ante chamber.

The plinth moulding is neat and plain, being composed of a succession of flat inclined surfaces forming a prominent projecting band between deep indentations; above this the sculpture must have been very elaborate, in high relief and good of its kind and style.

The beam head or rail course is ornamented by prominent griffin or lion heads, in pairs, facing one another. The stone is very much weathered indeed, especially on the east face, but enough still remains to show the style of the building and the character of the sculptures.

Above the plinth moulding the four main angles of the building have been carved into a rampant lion at each corner (as in the shore temple No. 6) supporting the upper part of an octagon shaft springing from the back of their necks, and terminating above in a squash capital, and a handsome spreading flat square abacus, above which are plain cross brackets.

The ornamental treatment of each face (north, east, and south) consists of a large niche or recess on the centre of each wall between square half pilasters, containing a mythological figure or group in high relief. The architrave joining the two half pilasters has a bracket on it supporting a squatting (? dwarf) figure above, between elaborate scroll work as in the wall niches of No. 37, No. 21, and No. 3.

The space between the central wide niche and the rampant lion piers at the angles is occupied by a narrow projection of two octagon pillars or pilasters with dwarf bases and a narrow niche between them containing a single figure in each. These narrow recesses, with their pillars, are capped by a bold projecting convex cornice or hood, ornamented with scroll patterns and surmounted by further ornamentation up to the principal cornice, which completes the exterior of the building, and is still nearly entire.

On the north face of the temple the centre-piece is a 3 (or ? 6) faced god with six arms supporting a throne or couch with a couple (? Śiva and Pārvatī) sitting on it. He has four, she but two arms, and there are two warders (in the narrow hooded niches). The projecting beam ends below are elephant-headed.

On the west side is the doorway in the centre of the portico or vestibule projection, in the relatively flat portion of the wall, corresponding to the wide central recess between square half pilasters of the north, east and south sides of the main body of the building, and, like them, is flanked by two corresponding hooded projections having a narrow niche between octagonal pillars containing a single figure each; in this case perhaps warders; but the inner faces of the jambs of the doorway forming the entrance passage are fashioned to represent the regular dvārapāl (warders) as already stated above.

The ends, or north and south faces of the portico projection, contain each a shallow recess between square half pilasters, of the same style as the centre pieces of the north, east and south sides of the temple. That on the north face contains a bas-relief of a man (or god) trampling on a giant. That to the south a shock-headed boy with a thin staff (?). He stands on the left leg with the right across in front of it, and resting on the toe. The left arm is across his breast and the left hand raised, whilst the right is seen about the middle of the waist with palm open.

The central panel between the square half pilasters on the south side of the main block of the temple contains a somewhat similar figure to the last mentioned (that in the panel at south end of the portico projection); only in this instance he is seated nude on a seat or bank under a tree (?) with the right leg hanging down aslant and the left drawn up, with the (left) foot resting on the right thigh, and a cord tying the bent leg to the waist. The features of the face and the shock of hair parted in the centre are much like the figure of a shock-headed boy on the southernmost monolith (*Ratha*) No. 48. He may represent some *Rishi* or ascetic, as there are no traces visible of extra pairs of arms to indicate godhood. The more common meditative position of the professional ascetic is to have both legs drawn up and confined by a band round the waist. The features of the face and head are wonderfully well preserved, considering how much the rest of the sculptures, especially on the east or seaward-facing portions, have been obliterated by weathering.

The architrave surmounting the centre-piece panels is highly ornamented by very florid scrolls, somewhat flying-dragon fashion, and a little like the niche-and door-surmounting scrolls of the *Draupadī* (or *Śakti*) monolith No. 37, with a dwarf (?) in the middle. The two narrow corniced or hooded projecting niches on the south side contain single tall-capped figures, possibly warders, standing at ease.

The centre piece on the east side represents a ten-armed god, half sitting, with spread eagle legs, and wearing a tall *tōpi* or cap. The whole of this side is very indistinct from weathering, and the sculptures cannot be made out at all clearly. The chief left arm seems to be stretched up as if supporting the roof.

The narrow hooded projecting niches on each side of the centre piece contain similar tall-capped warder-like figures, with their outer arms across their breasts and the hand raised on the inner side, as is likewise the case on the other sides of the building.

The Olakkanneśvara Temple was probably, as it is still called on the spot, a Śaiva shrine; but it has been completely demolished inside, and the liṅgam and any interior carvings it may have possessed, removed.

In style it much resembles the "*Aleva*" or shore temple No. 6, but as there is nothing above the first or basement storey, there are no means of knowing whether it ever was or was meant to be provided with cell terraces, &c., or any upper storey above. The signs of a plaster coating, and the rampant lion pillars at the angles, as well as their capitals, connect it in style with the other structural shrines in the locality; whilst besides these, the shock-headed figure, the horse-shoe dormer ornaments of the cornice containing projecting blocks, and the scroll patterns above the central recesses with sculptured panels, all point to a connection with the monolithic shrines.

Its peculiarities lie in its corniced basement below the terrace path (or Pradakṣiṇa) and in the brick masonry lining which has been, however, completely removed.

Of the monoliths it most resembles No. 4 at the Valaiyan Kuṭṭai.

THE VARĀHASVĀMĪ (CAVE) TEMPLE.

35. I was not admitted within this temple and merely looked at it in passing by. But I have since examined the plan and sections which were being made by Mr. F. Pope of the Chief Engineer's Office, D. P. W., Madras, at the time of my visit. From these and from the notices in Carr's book the following notes have been gleaned.

The Varāhasvāmī (Viṣṇu) Temple (excavation and building), also called "The Cave," is at the extreme south-south-west corner of the main group of the rocks, and consists of an excavation about ground level in the west face of a low flat rock, in front of which a small structural maṇḍapa or pillared hall has been

built, surrounded on the south, west, and north side by an incomplete enclosure from 30 to 40 yards square.

The maṇḍapa or outer chamber is about 32 feet along (north-south), 17' 6" wide (east-west) and 10' high. It is exactly in front of the older portico cut in the rock. It is built on three sides of stone, and on the south side has a small side chamber 17' 6" by 7'. The doorway into this is at some height from the floor and only 3' high by 1½' wide or less.

The roof, which is of plain hewn stone beams covered by brick-work and concrete, is supported by two groups of four pillars each, irregularly spaced about 5 feet apart, and so as to leave a wider interval (7' 4") in the centre, between the two doors.

These pillars are monoliths 1 foot in diameter carved in modern style; 8½ diameters below the bracket, which is about one diameter (1') high and 3 diameters wide.

They are composed of a square base, 2 diameters high, the faces of which are carved with mythological figures, scrolls, &c. Above the base for about 1 diameter is an octagonal moulding with florid leaves at the angles, and above this a 16-sided shaft, 4½ diameters high, crowned by a square capital ½ a diameter in height. The bracket, 1 diameter in height, making 9 diameters between floor and architrave, which latter is 1 foot in depth, completing 10 diameters up to the ceiling. The brackets are carved in florid scrolls with a double curve, drooping at the outer end of each branch, and finished by a drop or drooping bud in the mediæval or modern style like those in the Kṛishṇa Maṇḍapa, No. 15.

Opposite the front or outer entrance a doorway about 3 feet wide with an ascent of two steps leads to the original rock-cut chamber about 34 feet long N.S. by 16 feet at widest, and 10 feet 6 inches extreme height.

The front of this was originally open and divided into five bays or openings by four octagonal pillars between two semi-octagon pilasters, all having the lion bases, of the same style as those of the Kāmarāja (now Gaṇeśa) Temple No. 24, and identical with those of the Varāhasvāmī Maṇḍapa No. 25, except that these have no tabular abacus, but the scroll-ended bracket

is superposed immediately on the capital with a thin flat tile intervening.

The face of the rock above this excavation appears to have been carved to represent a (structural) building with a prominent overhanging cornice, plinth and balustrade moulding, with surmounting row of cells as usual; but much of this is hidden by the brick masonry wall by which the front of the excavation has been enclosed.

In the centre of each end of the main (excavated) chamber an octagonal pier has been left standing to support the rock above, which forms the roof of the cave.

These two piers resemble the four in front just mentioned, except that they have no lion bases. They are composed thus: at foot a plain base about 2 feet 3 inches in diameter, ornamentally sloped away in 8 inches of height to 1 foot 4 inches, the diameter of the shaft, which extends undiminished for $3\frac{1}{2}$ diameters to the shoulder, above which comes a gradually tapering neck and spreading collar-moulding for the height of a single diameter up to the lower side of the usual bulging squashed-cushion capital, which is nearly a diameter in height and $1\frac{3}{4}$ diameters in width.

Above the capital there is no slab abacus, but merely a thin square plate, above which the scroll-ended brackets extend less than 3 diameters in length and less than 1 diameter in height. The height of the column is 6 diameters from floor to top of capital, 7 to the architrave, and nearly 8 to the ceiling. The plain outline of the shaft is broken by a narrow and a wide band of ornamental carving of rather old-fashioned style.

A shrine-cell has been excavated at the back, the doorway of which projects 3 or 4 feet into the centre of the main chamber with its floor a couple of steps (1 foot 9 inches) higher. The doorway is a deep and comparatively large one, being 6 feet 9 inches high, 6 feet 3 inches wide, and 4 feet deep.

The shrine-cell or sanctuary is 8 feet 9 inches high, 8 feet 7 inches wide, and 6 feet 7 inches deep, and its back wall is 23 feet 6 inches from the face of the original excavation, or 44 feet 6 inches from the face of the outer (built) chamber, whence this

excavated shrine seems to have obtained the name of "The Cave" *par excellence*.

35-A. The back wall of the shrine-cell or sanctuary is occupied by the carved representation of the Varāha Avatāra of Viṣṇu, very much the same as it is represented on the north end wall of the Varāhasvāmī Maṇḍapa (No. 25) and the sculptured slab at Maṇimaṅgalam. The excess of ornament shown in this plate is perhaps due to the fact of the sculpture having been painted (see Carr, page 211). The Ādiśeṣha is shown differently from that in the corresponding bas-relief in No. 25A, and the other figures there shown (Carr, plate V) are here wanting. The lotus flower on which the right-foot of the goddess rests is here very prominent, in the other it has disappeared. If rightly delineated here, I should suppose this sculpture to be considerably more recent than that.

Returning now to examine the sculptures on the walls of the main chamber; they are eight in number without counting the subordinate figures.

To begin with the westernmost on the north end wall.

35-B. The first is a recessed niche 3 feet wide, 6 feet 6 inches high, and 1 foot deep, containing a (?) four-armed single figure standing. The left upper arm is not seen nor any emblems or weapons. The head wears a tall *tōpi* of the usual pattern, and a little figure floats in the upper left hand corner of the niche with hands joined. Perhaps this is the figure called Śrī Rāma by Kāvali Lakshmayya (Carr, page 211) with Āñjaneya (Hanumān) praising him. The principal figure is draped below the waist, wears a cord over the left shoulder and under right arm, and has a girdle of bands with snake-fashioned ends (?) standing out from the right hip. A necklace, armlet, wristlet and anklet may be seen, but the earrings, if any, are not large.

35-c. The next niche to this is nearly 5 feet wide and contains a group of 3 figures.

The central figure is two-armed, seated on a chair or bench of which the two ornamental feet are clearly seen. His hat or tall *tōpi* is not so high as that (in 35-B) last mentioned, but otherwise he is clad in much the same way as that, with similar cord and

jewels, &c. The left foot lies on the seat, and the right foot hangs down but without any footstool. As in the last case, the left hand rests on the left thigh and the right is raised. On his left is the figure of a woman (?) standing with a breast band on, and a tall *tōpi* with necklace, jewels, and right hand similarly raised. On his right stands a man similarly attired. In front of this niche there appears to be a platform or bench about 8' long 3' wide and 1' 8" high, the height of the bottom of all the niches and of the central shrine-cell above the floor of the chamber.

Can this the only seated figure be the Ālvār, still worshipped under the name of Bhūta (see Carr, p. 133), for whom the grants of land inscribed on the rock adjoining the north wall of this temple were made "in the ninth year of Koppara-keśari-varma, also called Uḍaiyār Śrī Rājendra Devar"? (This king has been identified with Vīra Rājendra Cola, also called Vīra Cola *alias* Kulottuṅga-C. *alias* Rājarājendra or Rājarāja, who became king in 1064 A.D. Burnell, S. I. P., p. 40.)

35-D. The next tableau is the Gaja Lakshmī, seated on her lotus throne, occupying the northernmost niche of the east (or back) wall of the chamber, 6 feet wide. It is a copy or very nearly identical with (25-B) that in the corresponding position in the Varāhasvāmī Maṇḍapa, delineated in Carr's, pl. VIII.

The north and south end compartments of the back or east wall stand back. The pair, one on each side of the central shrine projection, stand a little more forward intermediately, and are not so far advanced as the entrance to the shrine.

35-E. The next compartment is one of three niches, the principal and centre of which contains a four-armed goddess (?) standing on a (? lotus) pedestal with a pair of half-kneeling little tall-capped human figures at her feet, one on each side with hands joined as if in devotion. The goddess bears emblems in her upper (extra) hands, and wears all her jewels, and has her principal (lower) hands exactly as in 35-B, c and F. This niche is flanked by two very narrow niches containing a single tall-capped standing human figure each.

35-F. Passing by the projecting entrance of the shrine-cell,

there is another triple compartment of 3 niches precisely corresponding to 35-E. A four-armed crowned (?) goddess, standing on a pedestal between two half-kneeling tall-capped devotees and bearing two emblems, that in the left-hand being rather like the *caṅkha* (conch shell), and flanked by two tall standing men (?) in narrow niches one on each side. The two single figures in E and F next to the shrine-cell projection may be intended to stand for the warders, which otherwise seem to be wanting in this cave, and the outer ones perhaps correspond to the similar figures of men standing on the north and south end walls of the shrine-projection in the Varāhasvāmī Maṇḍapa No. 25.

35-G. At the south end of the back wall and corresponding to the Gaja Lakshmī at the north end of the same, standing back similarly in the east-south-east corner of the cave is a more elaborate group than the rest. It appears to represent the goddess Durgā eight-armed standing *at ease* on the head of a buffalo. Her principal (lower) hands rest freely on her thighs, and in her three extra supernatural hands on each side she bears weapons or emblems of which (as in 35 E and F) the upper left is apparently the *caṅkha*. Others may represent perhaps a shield or disc, a sword and a bell. She has two half-kneeling low-capped devotees at her feet, and two tall-capped armed attendants; one of each on either side, and of the latter, one stands at ease holding a long bow of double flexure unstrung and the other carries a short sword. Above the goddess two little figures float in mid-air one on each side, and in the upper corners of the niche the head of a lion and that of a bull (?) may be seen.

This tableau corresponds to No. 25-c which occupies the corresponding east-south-east corner of the Varāhasvāmī Maṇḍapa. Only there the goddess, said to be Bhadrakālī (or Durgā, Kāvalī Lakshmayya), has but four arms, is more nude and has an umbrella over her; and the six attendants are arranged and figured differently. Moreover, something like a deer's (?) head there takes the place of what is an undoubted bull's or cow's head here as shown in the drawing whence these notes are chiefly derived.

35-Н. Turning now to the niches on the south end wall the first (or easternmost) niche contains the figure of a tall-capped man with the cord over his left shoulder, holding with his left hand the right arm of a lady who is followed by another. This is said to be king Hariśekhara (see Carr, p. 211), who is mentioned also in the Sthalapurāna (Carr, p. 178).

35-К. The remaining niche occupies the west part of the south end of the main chamber, and contains a standing four-armed figure with three heads, each crowned with a tall tōpi. The figure wears the cord over left shoulder, and in this case the *right* lower hand rests against the right thigh whilst the left (lower) hand is raised.

The superhuman hands bear emblems, one of which resembles a disc or ring surrounded by knobs, attached to a longish handle. The other might be a vase or a flower at the end of a tapering handle.

Over the niches a prominent cornice has been left carved out of the native rock, of the usual convex curvature ornamented with a couple of the upright horse-shoe facets, each containing a human face in bas-relief.

These and the style of the pillars, &c., are so like those of the adjacent caves and monoliths (Nos. 15, 16, 24 and 25) for instance, that they would all seem to be of nearly the same age. But not so the additions. Without actual inspection it is difficult to say for certain ; but it appears that the open front of the original excavation was first bricked up by a wall and that the outer structural Maṇḍapa of stone was added subsequently, as has been done also in the case of the Kṛishṇa Maṇḍapa No. 15, the pillared hall in front of the great Pastoral Bas-relief.

The Tamil inscription in the niche cut in the face of the rock on the north side of the original excavation, recording and describing grants of land in favour "of the Ālvār in the temple of Śrī Parameśvara Mahāvarāha Viṣṇu, in Māmallapuram or Jananāthapura," which has been found to belong to the year 1073 A.D., proves that the original work is older than this date and also that the additional wall by which a part of it has been covered up is considerably more recent still, for it is not likely to have

been built up and partly concealed whilst the grants were considered important records.

There is such a general resemblance of the sculptured tableaux here to those in the Varāhasvāmī Maṇḍapa No. 25, as well as to some of the other carvings, such for instance as those in the Kapālīśvara or Nandagopālpālaiyam No. 21 that I am inclined to attribute the original excavation and tableaux to a very early date, and the additions to the same date as those of No. 15, the Kṛṣṇa Maṇḍapa.

It was intended to make a complete outer enclosure by a brick wall and a small gopuram or gateway tower, but they are incomplete.

Midway between the Maṇḍapa and this unfinished gateway stand the two usual altars, which in this instance have a snake's head erect between them facing the temple. There is also here a short pillar apparently devoid of all ornament, perhaps intended for the usual lamp post (dīpastambha).

KŌNĒRI MAṆḌAPA SOUTH.

52. This is a fine excavation on the west-north-west side of the main group of rocks, but it is unfinished.

It consists of a double verandah or portico of five bays or openings under a cornice, between 4 plain bracketed pillars, 7 or 8 diameters high, and 2 pilasters. In the outer row the pillars have no capitals, but the under sides and ends of the brackets are indented or beaded, in the prevailing style of the locality, both in the monoliths and the excavations. The pillars are octagonal in the middle. The outer aisle or verandah is 36' 6" long and 7 feet wide. The inner row pillars are sixteen-sided, with a neck and squashed capital, in the prevalent style, only without the lion or griffin bases. They have two ornamental bands round the shafts. The back wall behind the inner aisle or verandah is pierced by five doorways under a narrow ornamental cornice, each flanked by a couple of dwārapāl warders. Except two of them, these warders are unusually plain, representing ordinary men, decently clad, and weaponless but holding up an extended forefinger each, as if enforcing caution. One pair of

them only have spiked maces on which they rest 'at ease.' The cells are quite plain and now vacant, but, from the encircled sockets in each, they were intended probably to be furnished with a lingam apiece, with a tableau behind it as usual, for which however the panel only has been prepared.

The two flank or end walls outside the covered portion of the excavation have the *caṅkha* and the *cakra* just as in the Rāmānuja Maṇḍapa (No. 48) which it resembles also in having no liṅga remaining.

Under the cornice is a frieze or string course of birds. The extreme measurements of this excavation are length 36' 6" north-south, depth 22 feet to back of cells, and height 10 feet.

KŌNĒRI MAṆḌAPA NORTH.

No. 51 Madras of Madras Survey Map; No. 6-2, p. 78, Braddock, and para. 26, p. 213, of Kāvali Lakshmayya.

51. This is an unfinished excavation adjoining the last (No. 52) and north of it. It consists of five bays between four griffin or lion-based pillars and two plain square pilasters. It has only a single verandah or portico 36' long (north-south), 10' deep (east-west), and 10 feet high (Braddock, p. 78), and a single niche or cell cut in the back wall 6' wide, 5 feet deep, and 6 feet high, quite plain and vacant. The capitals of the pillars are large square massive blocks left quite unfinished.

There is a single short line of inscription engraved on the floor immediately in front of the recess or shrine-cell.

THE 5 MONOLITHIC SHRINES (OR RATHAS).

DRAUPADĪ'S "RATHA," No. 37 of *Madras Survey Map; Braddock's No. 21 (Carr, p. 104); AND THE ŚAKTI (GODDESS) "VIMĀNA" of Kāvali Lakshmayya (Carr, p. 214).*

37. This is the monolithic shrine at the north end of the line of the four so-called "*Rathas*," and it is devoted to female images or sculptures, the central figure at the back of the shrine inside being a four-armed goddess attended by six figures (armed dwarfs, &c.). She wears an ornamental high *tōpi* and is adorned by various girdles round her breast and waist, &c., also anklets.

Her upper left arm is broken off, and on the broken part a (𑖦) mark has been cut. All the figures have large round earrings. Except for the sculptured panel the shrine is a small plain cubical cell, without any portico or vestibule, such as most of the other shrines have. It is entered on the west side by a plain doorway 6' 7" $\times$ 2' 10" between square piers or pilasters assimilating in style to the rest in this locality. A handsome and very florid dwarf-mounted griffin scroll is carved in bas-relief on the façade above the doorway and also above the corresponding central niches or recessed panels on the other three sides of the shrine.⁶ In the doorway there are two mortise holes or sockets for doorposts or jambs cut in the underside of the lintel, but none in the sill below to correspond. Many, if not all, of the doorways or entrances to the shrines and deeper niches of the monoliths here are provided with similar sockets. On each side of the door is a plain rectangular niche containing a female warder or archeress, standing at ease, wearing a tall *tōpi* and holding a long bow in her right hand or leaning on it. These figures are a rather small life-size. Close under the eaves is a frieze or string course of dwarfs, but they do not bear the usual croll ornament in festoons. The only cornice is the eaves or lower edge of the roof which comes down thatch-fashion and projects well beyond the walls of the cell.

The four corners of this shrine are carved to represent plain square pillars of the prevailing style of the place, with a deep plain four-armed bracket above. On the north, east, and south sides there is a single shallow niche or recess between square (half) pilasters surmounted by the florid-dwarf-mounted flying-dragon croll⁶ and containing a goddess figure in each.

This monolithic shrine is surmounted by a square domical roof of (single) convex curvature, most simple in outline like the thatched roof of a square hay-stack, terminating above in a flat top 2½ feet square, evidently intended to have a spire-piece or finial to complete it.

⁶ Compare Nos. 3, 21, & 34, all of which have very similar florid scrolls carved on them.

The four corners of the roof are ornamented by elaborate scroll work at the base, extending along the rib or angle of the roof to the top.

This shrine is more nearly finished than most of the others. There are none of the prevalent *simha*, or lion-figures carved on it, but the style of the pilasters and the scroll work connect it with the neighbouring monolithic sculptures and with the older structural temples also. The style of the roof recalls the copper tiled pent-roofs of the halls (*Sabhā*) and shrines at Chidambaram.

No. 36, pp. 104 and 214.—There is a carved stone lion “*Simha*,” No. 36, in front of this shrine, a few yards to the west, facing the north, buried in the sand above the belly.

No. 38, p. 104 and p. 215.—Also behind it (the shrine) to the south-east is a carved colossal stone bull (*Nandī*, No. 38) facing west between this shrine and the next to it on the south. It is nearly buried in the drift sand from the sea-shore (to the east).

No. 40, pp. 104 and 215.—A little to the west and a little south of the lion is an elephant facing the south.

These three sculptured beasts are fully life-size or larger.

ARJUNA'S RATHA.

No. 39 of Madras Survey Map.

Braddock, p. 105, and No. 32, p. 215, *Nakula's Vīmāna of K.L.*

The second monolithic shrine from the north is called after Arjuna, or (by K. L. after) Nakula. But the solitary monolith with the waggon roof (No. 24) at the extreme north end of the rocks, made by Kāmarāja, was named also “Arjuna's Ratha,” although it is now called the Gaṇeśa Temple.

39. This is a small Draviḍian Śaiva-pattern Vīmāna (like those of Tanjore and Gaṅgaikōṇḍapuram) having two floors or storeys above the lowest or ground floor, with two tiers of cell-terraces, rising in steps pyramidally to the octagonal bell dome which crowns the work. The main block is about 11 feet square at base, but with a wide portico projection, as usual here, on the west side. The openings or doorways of most of the monoliths are to the west, possibly in order to prevent the salt spray of the sea-breeze penetrating into the interior of the shrines.

The ornamentation of this shrine is rather different from the last (No. 37) and, except as to the scroll work, more elaborate. The pillars or pilasters in the basement or ground floor are octagonal, instead of square, and arranged in pairs (somewhat as in the north, east, and west sides of Kāmarāja's temple, No. 24, at the north end of the sculptured rocks), with niches containing sculptured figures between them, and the curved ends of the brackets over the pillar-capitals are well indented or reeded transversely; an ornament that is found in most of the monoliths and excavations, but is only slightly indicated in No. 37 Draupadī's Ratha. Lean lanky griffins (?) rampant support the cornice at the angles, rearing up obliquely between the brackets. A pair of free-standing lion-based pillars seem to be wanting in the centre of the portico on the west side, where they would increase the similarity to the adjacent monoliths.

Within the portico the shrine or cell has been partly excavated, but apparently never finished, or furnished with any object of worship.

The bold projecting cornice overhanging the lowest story (ground floor) is fully developed here, and completely surrounds the shrine (portico included). It is of single convex flexure, having no reverse curve or bell-shaped splay at the lower edge as the roofs of the domes and domical cells have, and as the more modern South Indian temple cornices have. It is ornamented principally by semi-circular or "horse-shoe" dormer pattern upright facets, in pairs to correspond with the pairs of pillars below, each containing a sculptured human face. Each such dormer facet has, or was intended to have, a tall upright flat spike. They are often termed chaity or window ornaments.

This face-containing horse-shoe ornament is common here to the monoliths, the caves and the older structural temples, and is different from the associated roof dormers of similar (horse-shoe) shape, as these latter are not furnished with the masks or faces, but with a different object, to be mentioned. Above the cornice is a railing course or a string course of balustrade ornaments, the rails or beam ends being cut into griffins heads. This ornamental course lines the base of the lower tier

of domical cells, of which there are three on each face of the shrine besides the three minor ones of similar shape but less size which surmount the portico.

The cell ornaments are square at the angles with a square bell-dome, and the central cells are oblong and waggon-roofed, the whole being joined by what appears to be a continuous covered passage or corridor. All the roofs are ornamented by horse-shoe dormers, each containing a projecting curved block.

This projecting hood-like block is peculiar but common throughout this locality, but its use and meaning or origin is not obvious at first sight. It is as if a cube or squared block of timber had been attached to the wall and had then had its upper front corner cut off so as to blend the top and front faces into a single curved surface, leaving two quadrantal vertical sides, and a rectangular horizontal face below, flat. It often surmounts and projects hood-fashion beyond a plain square pier or pilaster, and is often accompanied by wooden-pattern baluster brackets, and some peculiar little blocks or studs, and also some curious holes to match, below an arched niche.

Within the row of cells, and standing on the same terrace or floor, rises the second storey, somewhat plainly. It is square in plan and plainly ornamented by division into three panels or shallow recesses on each face, by plain square pilasters with capitals supporting brackets and architrave under a sculptured freize. The panels or recesses contain sculptured figures in bas-relief as on the other monoliths; a couple in each side panel and a single figure in the centre one. This floor has no portico-projection, nor any deep shrine or recess for an image, as the somewhat similar but much larger Ratha No. 48 to the south of this group has. The second or middle storey is surmounted by a cornice all round, and above this the third storey is a repetition of it on a smaller scale, except that from the uppermost floor or terrace, and within the surrounding ornamental row of (8) cells and continuous corridor, the walls rise in an octagon neck capped by an octagonal dome somewhat splayed below, bell-fashion, and ornamented by semi-circular flat-spiked dormers, covering recesses with the peculiar projecting (? canopy) block above

described. The eight ribs or angles of the dome are carved ornamentally and end below as usual in florid scroll work spread over the base of the dome. In design this shrine much resembles the northernmost monolithic Ratha at the Piḍāri Kuḷam quarry (No. 2), but it is more nearly finished.

The kalaśas or ornamental vase finials are all wanting in this specimen, and so are the horns of the oblong cell ornaments, robbing the work largely of its highly ornamental design. In size this work is 16' + 11'-6" and about 20' high.

(NAKULA AND) SAHADEVA'S RATHA of the *Madras Survey Map*; the SAHADEVA'S VIMĀNA of *Kāvali Lakshmayya*, para. 33, p. 215 of Carr's book; also mentioned by Braddock, No. 20, p. 103 (*unfinished*).

41. This is the apsidal Ratha which stands slightly apart to the west of the other four monolithic shrines at the extreme south end of the locality. It faces, and is only open, to the southward, having its semi-circular apsidal end or back to the north.

It consists (like Nos. 2, 3, 4, 24 and 39) of a basement or ground floor more or less excavated to afford a cell or shrine chamber with a shallow portico in front, and a roof in two storeys besides the dome, each of which is ornamented with a row of simulated (dormitory or meditation) cells, ranged round its outer edge, joined by a continuous covered passage or corridor, and furnished outside with a railing or balustrade ornament.

The upper floors or terraces end in a projecting cornice which overhangs and shelters the walls below it, and prominently marks the division of the roof into terraces. Here, as usual, these boldly projecting cornices are of simple convex curvature, and ornamented by erect horse-shoe facets, each containing a human head in relief, usually with a bushy wig of hair.

Except at the two angles of the temple and at the ends of the portico-roof, where they are square and domed, all the ornamental cells are oblong and waggon-roofed, with horse-shoe dormer niches each containing a curved projecting block as if intended for a flat-sided hood or canopy, over a tall narrow projecting panel-shaft which may well have been once painted or left to be sculptured.

The larger corresponding projections under the principal

dormers of the true roof have actually been cut into panels or shallow recesses in which the commencement of a figure in bas-relief may be traced : in Bhīma's Ratha (No. 42) the sculptured figures are seen clearly and the design displayed, if not completed.

The bargeboards of the horse-shoe dormers have been highly ornamented with rosettes and floral scrolls, &c.

Underneath the eaves of the roof a row of small projecting blocks has been carved, perhaps representing the end of horizontal rafters or beams.

The southern face or front of this shrine is handsome. It consists of a wide open portico surmounted by a cornice and row of cells as usual, supported on two polygonal lion-based pillars (unfinished). The shrine-cell is vacant.

The façade or front end of the roof has a horse shoe top, and is not pointed like those of No. 42 and No. 24, and it is rather different in the middle, for it contains no open shrine-niche like the former, nor does the *dagoba*-like centre piece (?) resemble that of the latter. It seems more like a reproduction of its own apsidal end, or the half of a round, closed temple with a dome roof, standing in an arched niche or semi-vault excavated to contain it ; the lower part or storey of the ornament is separated from the upper dome-capped half, by a projecting cornice. The remaining flat part of the end wall within the horse-shoe eaves is carved into a couple of round-headed niches somewhat like those on the ends of No. 42 and No. 24.

I had no opportunity to examine this interesting monument more closely.

The sides and apse end are not open but a plain blank wall except for the pilasters which break the blank wall space, like those on the north, east, and south sides of Kāmarāja's temple, No. 24.

The size of this shrine according to Braddock is 18 feet long (north-south), 11 feet wide (east-west), and 16 feet high.

(BHĪMA'S RATHA) of *Madras Survey Map* ; No. 23, p. 105, of *Braddock* ; or BHĪMA'S VIMĀNA, para. 34, p. 215 of *Kāvali Lakshmayya*.

42. This waggon-roofed monolithic temple (?) stands 3rd from the north and next to the southernmost.

In plan it is 42 feet long 25 feet wide and 25 feet high (Carr, p. 105). This is a most unusual form of temple and is supposed to resemble a Buddhist hall. The waggon-roof with its five horse-shoe dormers on each side, and its curvilinear gable-ends, is finished or nearly so; and so also for the most part are the end façades, especially that on the north end, the sides, which contain five niches under the five dormers, and the continuous row of (imitation) monks' cells which line the outside of the verandah roof, or cell-terrace, immediately over the verandah or ground floor storey. But in parts, especially the lower part of the south gable end façade, and on the east side, the work has been left incomplete and only blocked out.

The cornice overhanging the verandah is nearly completed all round, but the ground floor is only begun. It was apparently designed to have a verandah all round, except at the four corners, perhaps divided into bays by free-standing polygonal lion-based pillars between corresponding square pilasters (*antæ*), of the style so prevalent here (which may also be seen in the neighbourhood at Maṇimangalam, 22 miles north-west, and at Tellār, 44 miles to west-south-west., and doubtless elsewhere). There are five bays or openings on the west and east sides, and three bays at the north and south ends. A transverse vertical crack from top to bottom has completely divided the work in halves, which, with one or two other cracks, may well have stopped the work.

The northern gable end façade is the most perfect. It consists of a projecting cubical niche or shrine-recess in the centre, under a prominent cornice of the usual shape with two small erect horse-shoe facets, and surmounted by a high-domed *dagoba*-ornament, having a single horse-shoe, containing a human face on the front base of its dome. The dome is bell-shaped, and is capped by a *kalasam* or pointed finial.

The large central niche below the *dagoba* ornament and cornice is vacant now, but from the cubical hole or image socket cut in its floor, from the small channel for the escape of water or any anointing liquid, and from the door post sockets with which it is provided, it was evidently intended to contain an image or

a lingam. There are several other corniced niches of this description in the neighbourhood; two or more on the southernmost monolith, one at Śaluvāṅkuppam, a few miles north, and in the older structural temples of the place. This handsome *fronton* (the shrine niche with its surmounting *dagoba*) occupies the greater part of the façade between the barge (? *verge*) boards, its finial reaching to the apex of the equilateral (curvilinear) triangle formed by them.

The recess excavated to contain the *dagoba* top is demi-hemispherical, and on each side the projecting part of the roof is supported by a very elegant series of pendants and brackets, the spaces between which are covered by small semi-circular arches, three on each side. The supporting brackets are capped by mythic lion or griffin-heads, of the regular pattern so prevalent here in the pillar bases, all looking, with faces turned, inwards. In the north face of Arjuna's Ratha or the Gaṇeśa temple they face inwards in the same way; at the south end they face to their front, south. The margin or bargeboards are ornamented by rosettes and chaplets, or garlands hanging in strings or festoons, and a cable or beaded edging above, with a florid scroll terminating in animal muzzles at the peak, and still more florid scrolls on each side at the base.

The corresponding *fronton* in the south face of the waggon roof is not so complete, but is almost identical in design. The projecting block for the niche or shrine-recess below the small cornice-hood in the middle is not excavated at all.

The horse-shoe facets in the cornice all contain human heads as was noticed above in the previously described Ratha, and that in the front of the *dagoba* ornament also contains a face.

The long ridge of the waggon roof is, or rather was, designed to have 17 or 19 *kalaśams* or vase finials, the bases of which alone remain.

Each half of the waggon roof is worked to a very even surface from ridge down to the eaves without the usual scroll work, and is only ornamented by the five dormers which diversify very pleasingly the great bare surface. The centre one is withdrawn a little way up the slope of the roof and the end ones rather less

so; but the two intermediate dormers are at the lower edge of the roof markedly breaking the long line of the eaves. The centre and end dormers surmount small cornices with two horse-shoe facets each, extending down from the foot of the dormer-projection to the edge of the roof.

The dormers are of the horse-shoe shape, faced with large flat upright curvilinear bargeboards, highly ornamented with floral scroll work, and all contain the curved projecting canopy block between and under (?) baluster brackets, which stand up high above them and are joined together by cross-bars. Had there been any window-like opening or fret-work screen below these curious objects, the projecting block might be taken for a hood or shade to keep off sun and rain, with venetian boards above them. Under each of the five dormers is a projecting niche between square pilasters, which stand out from the side wall a little, but not so far as the eaves of their roofs. Two or three of them on each side have large human figures with tall *tōpis* carved in relief, whilst the rest, including the central one on each side, are cut out into a deep niche or recess, as if for a shrine, or for an entrance into the interior.

In the wall spaces between the five niches under the five dormers, the eaves are supported by numerous carved brackets, and the flatness of the wall is broken by a triple tassel ornament, hanging down from each bracket.

There is a gangway or path all round the upper storey of the great hall (if such it was) immediately over the verandah. Outside this there is a continuous row of domical or waggon-roofed cells all round the outer edge of the verandah roof, much the same as in the adjacent monoliths, only the roofed passage or corridor joining the cells has (at the ends one, at the sides two) diminutive ornamental dormer cells whose tops are on a level with those of the adjacent larger cells. The balustrade, railing, or beam—end course at the base of the cells is ornamented, as usual here, with griffin heads in pairs facing one another. These heads, like those which surmount the brackets under the large dormer façades, are something like the griffins or lions into which the base of the principal verandah pillars have been

carved so frequently throughout the monoliths, the caves and the older structural temples here. The outer edge of the verandah roof is carved into a continuous bold projecting cornice without a break all round, of single (convex) curvature, and ornamented as usual with the horse-shoe facets containing the human heads or faces. These faces or masks, it should be observed, are or were well wrought and diverse; but most of them have a profusion of hair often quite a shock, or like an old-fashioned wig.

The ridge of the roof has the bases or pedestals of 18 kalasams, and one more is missing from the peak of the south gable, which would make up 19, though the two end ones may have been flat horns or spikes, such as those that surmount the gable ends of all the oblong dormer cells and of the horse-shoe facets, or they may have been *trisūl* finials, such as those that cap the gables of the Gaṇeśa temple or Arjuna's Ratha, No. 24, at the north end of the rocks. This latter monolithic Ratha in fact much resembles Bhīma's Ratha, No. 42, only it is three stories high instead of two, is very much smaller, and is a mere model of a lofty building, containing but a little shrine or image cell and a very narrow small portico, without any verandah besides, whereas the large waggon-roofed monolithic Ratha of Bhīma might well have contained a fair sized chapel; but from the fact that the cavity of a central cell has been begun in the middle of the west verandah, which would here take the place of the usual portico, it seems probable that perhaps only a shrine cell was intended.

This very beautiful design is almost unique and would seem to be the prototype of Kāmarāja's or the Gaṇeśa temple (or Arjuna's Ratha) at the north end of the Māvalivaram rocks, and also of the ordinary waggon roof of all the Gopurams or gateway towers of the South Indian (Dravidian) temples.

The only roof like it that I remember to have met is that of one of the large halls (of no great antiquity) in the lower part of the fortress of Chenji ("Gingee"). The waggon-vaulted roofs of the Nayakkan style in Tanjore and Madura are seldom if ever between vertical (gable) ends, and the copper roofed halls

and shrines of Chidambaram are similarly stack roofed, and devoid of gables.

It is however reproduced in miniature in the oblong cell ornaments which adorn the roofs of most Dravidian temples.

DHARMARĀJA'S RATHA OR VIMĀNA.

No. 24, p. 106, of Braddock's account, and para. 35, p. 216, of Kāvalī Lakshmayya.

43. The southernmost of the monolithic shrines at Māvalivaram. This is a pyramidal-roofed shrine, with three storeys of cell-terraces above the lowest or ground floor storey, rising to a small octagonal dome, rather higher than a hemisphere, and very slightly splayed out at its rim or lower edge. The basement storey or ground floor below the lowest cornice is quite unfinished; above, the roof is for the most part complete. It is about 27 feet square, with a projecting portico on the west face consisting of four free-standing octagonal lion-based pillars (without *antæ*) only roughly blocked out, with shapeless capitals and brackets supporting the usual bold cornice, surmounted by a row of three cells joined by the covered passage or corridor.

Immediately over the architraves and under the cornice is a frieze or course of dwarfs bearing the long roll-ornament hanging down in festoons between them. This is only on the west face, and for the length of a single compartment along the north and south faces; the rest of the frieze is a row of dwarfs with their arms raised and extended, or intertwined, without the roll.

The portico was designed to be open at both ends as is the case in No. 41 on the north, east and south sides. The square basement block was intended to have a plain verandah of three bays each, between two central octagon lion-based pillars and two square pilasters "antæ" to match, without any projecting portico such as that of the west face on the other sides.

The angles of the basement story are left solid and have a tall narrow rectangular niche, two on each face, or eight in all, each containing the life size figure of a man or god standing erect, wearing a tall *tōpi* and some of them having a few archaic

letters engraved above by way of explanatory superscription. The angle blocks with their niches are quite plain and devoid of ornament, even more so than those of the little northernmost shrine called Draupadī's *Ratha*. All the images or *alto-relief* sculptured figures of these monolithic *Rathas* are more or less alike in style.

The basement story or ground floor is crowned by a continuous projecting cornice all round, in the usual style, ornamented with vertical horse-shoe dormer facets, each containing a face and between each pair of them is a gargoyle waterspout, of very realistic human shape, mostly broken.

There is a string course of elephants and lions (yāli?) all round the basement below floor level.

Immediately above the cornice there is the usual row of (simulated) dormer cells joined by a covered passage and ornamented much as usual. There is a string course at base of the cells of small rectangular blocks and cavities that gives the idea of a row of crosses. Except in the lower front row of cells over the projecting portico, the covered passages or corridors between the cells are not in this instance adorned with transverse upper-storey dormers as those of the adjoining (Bhīma's) *Ratha* are. Over the projecting portico of Nakula's *Ratha*, over that of the Sahadeva or the apsidal *Ratha*, and of Kāmarāja's temple there is a minor row of cells besides the principal row continuous with those of the other sides of the shrine. Here there is only one row, that over the projecting portico, which is continuous with the row of cells on the north and south faces. The inner row has been omitted from the space inside the projecting portico row, apparently to make room for the service of the shrine excavated in the centre of the west side on this floor.

This arrangement has been carried out also in the next storey above, recalling the line of projecting shrines or hooded niches to be seen in the centre of the side of big Indian temples over the chief shrine entrance below, usually on the east side. On the north, east and south sides the first or lowest terrace of the roof

has three waggon-roofed or oblong cells between square domed cells at the angles ; two such oblong cells on the second or middle terrace, and only one oblong cell between the square cells at the angles of the third or uppermost terrace.

The west side is exceptional on account of the portico projection which is carried up two storeys, and the central cell only is oblong and waggon-roofed. At the west-north-west and west-south-west corners, however, of the first or lowest terrace, the cells at the angles of the portico-projection appear to be half square domed and half oblong or waggon-roofed, which seems anomalous, unless they are intended to be models of the half dome, half ridge roof of No. 41.

On the first and second terraces there is a complete circumambulatory path, and on the east side it contains the only specimen of a form of stairs for the ascent to the upper story shrines which I have met with. It is a double flight ascending from the north and south parts of the lower procession terrace on the east side and meeting in the centre, behind the central oblong cell and at the level of its roof ridge.

The peculiarity is that the steps are concealed from view from without by a screen wall of an arc or bow outline, as seen by a spectator standing to the east of the monolith.

The means of ascent to the first terrace is not obvious, but it may have been by a wooden ladder or other structural stairs rising from a rock, which has been begun to be sculptured, standing a few feet apart from the base of the temple on the south side, whence but a few steps would complete a convenient way of ascent.

There are two shrines or image niches, on the west face ; the lower and larger one in the portico-projection of the first or lower terrace. It is vacant, but the upper shrine or image niche on the second terrace immediately above has a deep hole or socket for the pedestal of an image or a lingam, and behind it on the back of the niche a sculptured panel representing Śiva (four-armed) with Pārvatī and child seated as usual here, with two attendant

deities (? Vishṇu and Brahma) flanking him in the back ground. This tableau is produced again and again, as for instance in the Mahishamardinī excavation (No. 32), twice in the shore temple (No. 6), in the Mukunda Nāyanār (No. 54), and no less than three times over in the Atiraṇacaṇḍeśvara cave at Sāluvaṅkuppam, in all of which instances it is sculptured on the back wall of the shrine, immediately behind the lingam.

This niche has door-post sockets above as usual, and an escape channel for the liquid used in washing and anointing the image ; but there is no image or lingam now. The top or ceiling of the niche shows the remains of painting, as is the case also in Kāmarāja's temple, and several other shrines, Nos. 24 and 25.

The image shrine or portico niche of the first or lower terrace has a wide open front between polygonal lion-based pillars with squash capitals and short slightly-fluted brackets like those of the adjacent Rathas and excavations.

The walls on the north, east, and south sides are divided by plain pilasters, with small squash capitals supporting tribracks in the prevalent style here, into seven shallow recessed panels, each containing a full length figure or group, a selection of 14 of which are represented in line drawing in pl. XVI, page 60 of Carr's compilation. Many of them have a Sanskrit superscription in archaic characters (of the fifth or sixth century A.D.).

They are not all, or quite correctly, shown in Carr's book. No. 4, upper gallery, north side, seems rather to have a complete disc or ring for a crest on the top of the head-dress and not a crescent as there shown.

Several interesting ones are omitted. No. 2 from the east on the "upper gallery (*i.e.*, first terrace), south side," situate between Nos. 1 and 2 of plate XVI, has a death's head (skull) ornament, and triumphs over or strangles a prostrate figure below ; also No. 2 from west end of same row

between 5 and 6 of the plate bears two emblems. (See margin).

Another figure treads on a 3-headed Nāga, and pulls up its



tail. Several are figures of well-clad men, with common turbands; others wear skull caps, and the deified four-armed figures generally have very tall caps or head-dresses; others again, somewhat like the heads in the horse-shoe facet ornaments, have a great shock of hair, parted in the centre as in "No. 1, upper gallery (first terrace), east side," of plate XVI, which stands in the north corner panel of the east side. This figure is to be seen in several places in the locality, as for instance on the Olakkannēśvara temple, No. 34.

The third or uppermost terrace, surrounding the neck of the crowning member, is difficult of access, and seems too confined to have been ever used. The dome is octagonal, and higher than a hemisphere; each face is ornamented with a small horse-shoe dormer containing the projecting curved canopy block, and surmounted by a tall flat spike or horn. As in the last described (Bhīma's) Ratha, No. 42 all the free-standing kalaśams or finials are wanting, robbing the work of the finished and ornamental appearance so conspicuous in Kāmarāja's temple (No. 24).

THE SHORE TEMPLE.

No. 6 of Survey Map; No. 26, plate XX, and p. 107 of Braddock's account; ŚAIVA TEMPLE OF KĀVALI LAKSHMAYYA, para. 42, p. 218.

This temple of Śiva is on the beach, half-a-mile east of the sculptured rocks and modern temple of Viṣṇu. It is founded upon some rocks that rise to the surface, and may be seen here and there, a little to the north and south of the temple, which is further protected by a breakwater of pitched stones, but is much worn by the spray of the surf by which it is almost surrounded in rough weather.

The style of this temple is early Dravidian, and is not very far removed from that of the southernmost monolithic shrine (Dharmarāja's Ratha), and also of the northernmost but one, No. 39.

The ruins of a little temple (No. 8), 200 yards to the south-west, show it to have been also somewhat in this style, as well as those of the Olakkannēśvara temple (No. 34), and the Mukunda-nāyanār (No. 54).

The great Śaiva shrines of Tanjore and Gaṅgaikōṇḍapuram also approximate, and a perhaps superficial likeness of it may be seen in the temple at Tellār, and doubtless many other examples of the style might be found, if looked for, in Madras and Malabar.

The temple consists of a rectangular shrine surmounted by a high pointed roof rising pyramidally in four terraces capped by a tall bell-shaped octagonal dome with a kalasam finial like those of the monolithic shrines.

Including the basement, there are five storeys marked by four boldly projecting (convex) cornices and the dome.

The first and fourth terraces are without the usual domical cell ornaments, such as adorn the second and third terraces, but they are furnished with lion's conchant at the angles, the lion being of the type so prevalent here throughout the monoliths, the excavations and the structural shrines. From 20 to 30 (K.L.) of these lions may be counted here.

The proper entrance to this temple is by a regular doorway in the centre of the east side of the great screen or surrounding wall, and not the "mere plain opening in the wall" as mentioned by Mr. Gubbins (at p. 158 of Carr's book). On the outside (to east) there is a flight of steps leading down to the rocks and to the sea (? as at Rāmeśvaram), and alongside them is a smooth ramp or slide, just as may be seen on the north side of the great bas-relief (No. 17 Arjuna's penance). The doorway itself is 7' 6" high and 6' wide, Braddock, p. 107, flanked by (dvārapāl) warders, and surmounted by a higher or bigger cell-ornament cornice, evidently contemporaneous with the screen wall. On entering this doorway from the seaward the entrance to the principal shrine-cell lies open immediately opposite, at the top of a narrow flight of steps between the usual parapets. Two lions are carved on the walls on each

side of the entrance to the porch, with an elephant's head between them.

The ground floor or lowest storey has a portico projection on the east side crowned by the usual cell-ornaments and containing a vestibule or ante-chamber through which is the only approach to the shrine-cell, a small cubical chamber in which is a fine large sixteen-sided lingam, dismantled from its pedestal which is gone, and displaced (by searchers for treasure).

The tableau of Śiva, Pārvatī and child with their two attendant deities, is carved on a panel slab fixed in the back wall of the *cella* behind the lingam and opposite the doorway, under a projecting cornice which extends the whole width of the chamber.

Besides this there are two copies, of the same tableau apparently, in the porch, making three in all in this shrine, the same number as in the Atirāṇaṇḍeśvara temple at Śāluvaṅkuppam; but there is still another of it in the subordinate shrine of this temple which opens to the west, making a total of ten noticed by the writer in this locality.

There are two other figures, four-armed, carved on the back wall, one on each side of the central tableau, but there was insufficient light to make them out clearly.

Ten lamp niches have been cut in the side and front walls so as to throw a good light on the lingam and on the tableau. But for these niches, and except a slight moulding under what was the ceiling, the north-east and south walls are quite plain.

From the two rows of rafter holes in the north and south walls just above the cornice there would appear to have been a double ceiling to the cell, of which, however, no other traces remain; but the remains of a third ceiling still exist at a good height above the position of the double row of rafter holes just mentioned. Three out of six of the rafters or beams remain.

Kāvali Lakshmayya mentions four sandalwood beams remaining in his day (1803); only three remain now, and they are not of sandalwood but —, a common timber found in the jungles of South Arcot.

Immediately above the beams the tower is ceiled with slabs of

stones. As there seems to have been no opening into the loft or chamber between the ceilings, it is not obvious what their use may have been. It appears to have been an old practice to ceil some of the temple chambers (see Fergusson, vol. iii, Ind. and En. Archre., p. 428), and it occurs to me that they may have been used as relic shrines, or treasure chambers; or possibly merely reminiscences of such things, which properly belonged to the Buddhist stūpa, or dagoba of which the modern Vimāna or sanctuary spire is the lineal descendant. The lower ceilings may well have been broken into and destroyed by the persons who evidently broke up the floor and displaced the liṅgam, presumably in search of treasure.

The great screen wall is massively built, and has a grand projecting cornice with a coping of a continuous row of oblong cell-ornaments, adorned as usual, and its inner face is divided into three rows or tiers of small square panels, each containing a bas-relief sculpture of one or two figures, or a group, reminding one of the sculptured walls or railing on each side of the Buddhist procession path. Here, the space between the screen wall and the shrine is very limited for the purposes of "pradakṣiṇam" (or circum-ambulation turning to the right), and moreover a cross wall has been built across it on the west side.

The panel-sculptures are so weather-worn that they cannot be made out except here and there.

A five-headed Nāga figure occupies an interior salient angle of the wall. The angles of the main building are all carved to represent the lion rampant, so prevalent here, as in the Olakkan-ṇeśvara temple (No. 34).

The upper half of the plinth moulding of the main building is a succession of flat surfaces (as in No. 34), whereas the lower half is in curved moulding; one surface is ornamented thus

/W/W/W/ another thus:—

Above the plinth moulding runs a string course of horned griffin heads perhaps representing the projecting floor-supporting rafter-heads of a wooden superstructure.

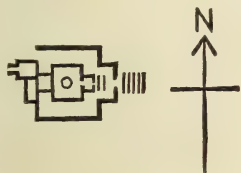
Small pieces of plaster remain here and there, which look as

if the whole of the building had been at one time covered over with it, and the same fact is to be noticed in many of the other sculptures, &c., in the neighbourhood. At Rāmeśvaram, where the great temple is much exposed to the salt sea air, one or more restorations in plaster have been made. The carvings are too good to let it appear that the plaster coating was part of the original design. The great screen wall of the temple



was about 40 feet square besides the projection on the east side, thrown out to correspond with the portico-projection of the main building, which it

probably at first was made or designed to surround completely. In the left rear (west-north-west side) a smaller shrine was built, a miniature copy of the larger one, open to the west, entirely outside the screen wall enclosure, and evidently (to my mind) never intended as an entrance to the latter. It has a small portico-projection of its own surmounted by the usual domical



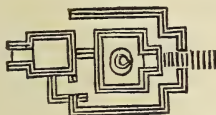
cell-ornaments and crowned by a bull couchant. Above the shrine cell in the basement the roof rises pyramidally, with three cornices and terraces between floor and dome.

The (dvārapāl) warders face one another in the entrance-passages or portico, as in the Olakkanneśvara temple No. 34. The shrine cell is very small and contains on its back (or eastern) wall a niche with a sculptured panel bearing the usual tableau of Śiva and Pārvatī, &c., already mentioned.



It has four lamp niches cut in the western and the side walls of the graceful pipal-leaf-shape common here.

It would appear that the small Viṣṇu cell was an addition made by taking in or enclosing a chamber in the corner between the south wall of the smaller shrine and the west side of the screen wall, a doorway in which was made opening into it from a small ante-chamber formed by two cross walls from



the back of the main shrine to the (centre of the) back (screen) wall.

It is evident that these cross walls are an after-addition and not integral with the main building, on which they abut without true incorporation.

Thirteen rafter-sockets or holes show that the Vishṇu cell was once roofed by wooden beams and a temporary roof or a false ceiling. No trace of any beams remains.

The prostrate image of Mahāvishṇu (? Nārāyaṇa) much resembles that of the same god in the Mahishamardinī Maṇḍapa (excavation) No. 32.

The outside of the smaller Vimāna must have been splendidly sculptured, but it is, with the rest, much dilapidated. The salient angles, like those of the principal shrine, are carved into lions rampant. The bull above the portico looks westward and seems to be about the only one now in its proper place. A great number of sculptured bulls are to be seen lying about, and particularly amongst the pitched blocks that have been made to form a breakwater on the sea face of the temple. This would seem to show that they have been wilfully dethroned if they were ever set up.

But where could they have stood, if ever set up? The lowest and highest of the roof terraces are, it is true, mostly vacant, except that sitting-erect lions occupy the angles.

The *kalasams* or urn-finials that crown the domes of this couple of temples are of black stone, in perfect preservation. They are slightly fluted or ribbed, so as to form sixteen sides, the same as the lingams here and at Śāluvaṅkuppam.

The screen wall has a coping of domical cell-ornaments throughout. The lion ornaments seem aboriginal, and perhaps the bulls were only prepared during some short Śaiva revival or ascendancy, but only one or two of them set up before the return wave of Vaishṇava domination swept them ruthlessly into the sea.

The oldest sculptures would appear to have an origin mainly Śaiva-Brahmanical, but with a considerable admixture of Vaish-

nava forms. Now, the lingam and the bull have been dethroned everywhere, but strangely enough, the tableau of Śiva and Pār-vatī with Subrahmanya remains in its numerous shrines untouched though unadored.

SCULPTURED ROCKS SOUTH OF THE SHORE TEMPLE.

No. 28 of Braddock, p. 109, and 46, 47, and 48 of Kāvālī Laksh-mayya, p. 219.

Lion Rocks.

From 250 to 300 yards to the southward from the shore temple (No. 6) and now washed by the sea at high water, 80 yards or so (south-south-east) from the ruins of the "Chetty's" temple (No. 8), are some scattered rocks, several of which have been sculptured, particularly a group of three close together. The southernmost of the three is carved into the form of a squatting griffin, or a tiger or lion facing the west, and having a small niche or excavated shrine between its paws, reminding one directly of the "Tiger Cave, Cuttack" (Fergusson, iii, p. 143); only the niche here is excessively small. It contains the figure of a many-armed god cut on the back wall of the niche. A couple of kneeling figures are cut on the rock below the niche, facing one another. Other figures are carved, perhaps, to represent warders, one on each side, very fat and standing on the paws of the enveloping animal, tiger, lion or griffin.

Some six or eight other figures are cut on the south-west corner of this rock, but all so weather-worn as to be hardly recognisable.

The east and south-east face of this rock is carved to represent an elephant's head and forepaws under an arched niche, with a bare backed horse approaching from the south. This carving is almost identical with the similar rock adjoining the Idaiyanpaḍal Maṇḍapa at Śāluvaṅkuppam (see Fergusson, vol. iii, 1876, wood-cut No. 185, p. 333).

On the north-north-east corner of this rock two nude human figures have been neatly carved, and there is a (? lamp) niche over the horse.

The next rock is smaller and lies on the west and north-west side of that above described ; it is carved to represent a lion couchant, and it has an elegant pipal-leaf-shaped lamp-niche on its east side, opposite the griffin niche of the south-south-eastern-most rock.

The (third or) northernmost of the three sculptured rocks south of the shore temple is like the first, to the south of it, in that it is carved into a griffin or tiger niche, only instead of a single griffin it has five griffin or tiger heads arranged in an arch, similar to the nine-griffin bower at Śāluvaṅkuppam. Here it is on the west side of the rock, and the niche is a plain arched recess without pilasters or cornice.

The figure of a man (a ṛishi ?) is carved on the back, and five now shapeless figures below.

This group of sculptured rocks is much smaller than that of Śāluvaṅkuppam, and, being within reach of the sea so as to be surrounded at every high tide and covered with the surf except in very calm weather, the carvings are much obliterated ; but the intention is so much alike in both that they would seem to be the work of the same people and age.

Śāluvaṅkuppam.—At Śāluvaṅkuppam, about an hour's walk over the sandy waste to the north, the first sculptured rock met with is the Idaiyanpaḍal Maṇḍapa.

The east face of the southern part of the rock has a bare-backed horse facing the north towards a couple of elephants' faces in rude bas-relief looking to the front (east), and between them the faint delineation of a pillar or pilaster with a round bulging capital and the lower part of a plain bracket, unfinished above. The elephants' heads are surmounted by small square niches within an arched hood or border. One of them seems to have been carved inside, but the carving is obliterated. An arched mark may be seen on the forehead or front of each elephant's face. (See margin).



The northern part of the rock adjoining rises to a greater

height, and is occupied by the "Tiger Cave" (see woodcut No. 185, p. 333 of Fergusson's *Indian and Eastern Architecture*, 1876).

THE IDAIYAN PAḌAL MAṆḌAPA.

In the centre is a niche or recess rather than a cell or cave, 7 feet wide (north-south), 3' 10" deep (east-west), and 5' 9" high between two prominent sculptured pillars and under a prominent convex cornice surrounding the niche-projection on the front and two sides. This niche or shrine is approached by a narrow flight of steps as usual, and is flanked by a smaller niche on either side, cut plainly in the rock and without cornice or pilasters. All three niches are now vacant and are surrounded by an arched border of nine lions or griffins' heads of the same pattern as at Māvalivaram, No. 8½, the three on each side looking inwards and the three above to the front. The lowest on each side shows an extended paw, and all of them have arched necks joining the head to the body of the rock.

The north-west face of this rock is also carved to represent a griffin's head, so that it only requires the lion and a few figures to complete the likeness with the group on the shore at Māvalivaram, 8½.

57. A little further to the north stands the bold needle-rock called Idaiyanpaḍal, "*The herdsman's shelter-screen*" (Paḍal is the common Tamil word for a hurdle or screen set up to keep off wind and rain). This rock, standing up aslant to a height of 30 or 40 feet so as to afford good shelter on its east side from wind, rain, or sunshine coming from the west, is by no means inaptly called Idaiyan Paḍal. High upon the west face of the rock several rows of little niches have been cut, very much the same as those to be seen high up on the rocks to the south of the Varāha Maṇḍapa, No. 25, and west of the great bas-relief (Arjuna's Penance).

ATIRANACANḌEŚVARA MAṆḌAPA, ŚĀLUVAN̄KUPPAM.

58. About 300 yards to the north of the Idaiyan paḍal is a large solid rock nearly buried in sand, which however had

recently been removed from the centre of the east side sufficiently to discover the entrance to an excavation of three bays or openings under a prominent cornice projecting 1' 3", and between two square pillars and two pilasters, forming a portico or verandah 28' 3" long or wide north-south, 6 feet deep east-west, and 7 feet high, on a raised basement and approached by a small flight of steps as usual.

The pillars are about $3\frac{1}{2}$ diameters in height (or 6' 9") and for the space of 2' 3", a little above the centre, are cut to the octagon form. They have no capitals but support brackets, with grooved or indented ends and under sides, like those on the pillars of the monoliths and excavations at Māvalivaram, which latter however usually have bulging capitals also. Opposite the central opening or bay is the doorway of the shrine-cell which projects about a foot from the general line of the back wall into the verandah under a prominent cornice which projects a foot still further. The shrine doorway is 5' 2" high by 2' 6" wide and flanked by tall-capped dvārapāl warders armed with club and snakes(?) The sanctuary cell is only 3' 5" square and 5' 2" high. It contains a handsome 16-sided līṅgam which is very slightly fluted or ribbed, and supports the "pānavatṭam," or yōni(?) with its channelled spout to carry off the anointing liquid nearly half way up the shaft, which latter is firmly embedded in a circular hole or socket. A small escape channel for the anointing fluid has been cut in the floor along the north edge of the floor and to the outside by a hole in the north-east corner.

The upper part of the back wall of the cell has a panel sculptured with the usual tableau here, representing Śiva four-armed, Pārvatī and the child, and two attendant gods in the back ground, leaving scanty room for the regal umbrella and none for the usual *chauri*.

The only other adornment noticed in the cell was a pair of pipal-leaf lamp-niches, very elegant. The two side walls are pierced at top with four holes; two at back, and two in front, as if for the ends of a curtain rod behind, to carry a curtain just in front of the sculptured panel, and perhaps for the ends of the

lintel of a door in front. Opposite the two side bays, the back wall of the verandah is cut into two panels, each having a copy of the favourite tableau of Śiva, Pārvatī, child and attendants as usual, whilst in the verandah directly in front of them stand two more *lingams*, which however could not be seen on this occasion owing to the sand, which although only recently removed, had already nearly filled the verandah again. Both the cornices are plain and unadorned with the horse-shoe dormer ornaments. The inscriptions in this mandapa affiliate it with the Kāmarāja or Gaṇeśa temple, and other monoliths, and some of the excavations at Māvalivaram, as do the sculptured panels also with the structural temples.

Another connecting link is the little ruined structural temple (No. 54 of Revenue Survey Map) named Mukunda Nāyanār, situate on the sandy plain between Māvalivaram and Śāluvaṅkuppam. This temple opens to the east and recalls strongly the shore temple, the Chetty's temple, and the Olakkanneśvara temple. The sanctuary under the octagonal bell dome contains, under an ornamental cornice, a niche with a panel engraved with the tableau of Śiva, Pārvatī and child, the same as already met with so often at Māvalivaram. All these structural temples are to some extent megalithic and recall a style of old temple frequently found in Malabar on the opposite coast of South India. Traces of a coating of plaster still remain on this temple.

THE STHALAŚAYANASVĀMĪ (VISHṆU) TEMPLE.

13. This is perhaps the temple referred to at page 181 of Carr's book in the Sthalapurāṇa, or Mallāpurī Mahātmya: also mentioned by Kāvali Lakshmayya in paragraph 12, page 205, as the Sthalaśekharaśvāmī temple. This temple (No. 13) is about the centre of the place, at the east foot of the rocks and in a line between the foundations of the unfinished Rāyala Gōpuram on the top of the rock (No. 27) and the Shore temple (No. 6). The lower parts of the interior and the surrounding wall are built of stone and may be of a respectable age, but the whole has been so much "restored" and covered by plaster and stucco-

ornamentation that at present it resembles a very modern Dravidian Vaishṇava temple: nevertheless a few points about it may be worth noting.

Admission being denied, it could only be observed from without.

The first peculiarity that struck me was the fact that the principal *vimāna* or sanctuary-spire is not square and pyramid-roofed, but oblong like an ordinary *gōpuram* or entrance-tower crowned by a waggon roof, the ridge of which is surmounted by five modern *kalaśam*-finials between the horns that cap the *simhamukha* ends, or north and south faces of the waggon roof. It occupies the west centre of the inner enclosure exactly opposite the entrance. There is another and smaller shrine alongside, in the south-west corner of the enclosure, covered by a small pyramidal and dome-capped spire containing in all probability the shrine of the goddess (*Lakshmī*). The oblong shape of the principal (god's) shrine with its ridge roof and *kalaśams* may be referred to in the *Sthalapurāṇa* (See Carr, Appendix, p. 181): "Afterwards a *vimāna*, called *Ānandanilayam*, having seven pinnacles and containing a shining image, descended from *Vaikunṭha*, round which the king built a wall with a *gopura*."

The roof dormers and the horse-shoe facets of the domical cells which adorn the sanctuary tower contain human faces or masks, and the lion is repeatedly represented and the *Narasimha* or man-lion form occupies the central place on the west face.

There are two rows or terraces of cell ornaments above the level of the flat roof of the main body of the temple in front (east) of the shrine and below the highest storey or terrace which carries the waggon-roof. There are three cornices; one below each of the terraces or steps of the roof. The lowest of these is of stone and runs round the entire building. It is simply convex and rather cramped than boldly prominent. It is ornamented with the usual erect horse-shoe medallions, each containing a human face] or mask. The brick-and-stucco

cornices above are of double curvature, convex above and concave below. Square domical cells occupy the angles of the cell-bearing terraces, between which, on the long sides (east and west), stand two oblong waggon-roofed cells, each furnished with three kalaśams, the usual complement on those of the monoliths and rock excavations being two only.

The gōpuram at the entrance of the inner court is five-storeyed and has nine kalaśams on the ridge of its waggon-roof, a still more modern-looking building. Its lowest cornice, of stone, has the horse shoe face-medallions, and the central dormer on the barrel of the waggon-roof (east side) contains a remarkable grinning face of a man or demon. The pilasters were evidently intended to resemble the style of those on the monoliths and rock excavations. The brackets are deep and of wooden pattern. Another great stone gopuram was designed for the entrance to the outer court but never carried out.

In the entrance to a small ruined chapel on the north side of the outer court, I noticed a small black polished marble Buddhist or Jaina image (?), set up in (or built into ?) a niche in the east wall, facing west.

Madras Survey Map "Seven Piḍāris, Jain Idol and a Liṅgam."

5. This is a group of slab-stone images set up in a row north and south, facing the east, from 350 to 400 yards north of the Dolotsava or "swinging festival mandapa" of the large modern Vaishṇava temple, along the principal street of the village, and on a mound supposed to be the site of a Piḍāri-Amman (village goddess) temple. The eight figures are cut in high relief out of eight separate slabs of hard stone, standing some two or three feet out of the ground. They are four-armed with high *tōpis* or head dresses and bear their cognisances about them. The chief and highest of them occupies the middle of the row, on the top of the mound and represents a four-armed demoness (left upper arm lost), wearing a great shock of hair parted in the centre and hanging down the back in a long tail ending in a triangular knot or knob. She has a large round (disc) earring in the left ear, and a sprawling child (perhaps dead) suspended by the

middle through the elongated lobe of the right. She grasps another child in her left (lower) hand on her left thigh, and a big knife or dagger in her lower right hand on her right thigh. Next her of the four *Piḍāris* on her left (north) side, the

- (1) First is a pig-faced goddess four armed with a tall (fools-cap) *tōpi*;
- (2) Second a shock-headed demoness;
- (3) Third a somewhat similar goddess with the *caṅkha* and *cakra* in her superhuman hands raised aloft;
- (4) Fourth and last a similar figure with *triśūla* or trident in her right, and a crescent moon (?) in her left upper hand. To the right (south) of the highest figure in the centre are three others:

1st, a three-faced goddess holding up something like a ball, and a ring;

2nd, a shock-headed god (?) “*The Jain idol*” of the list, holding up a loop and a ring. The natives of the place insist on calling this a goddess, notwithstanding that the bust is that of a man or god;

3rd, and southernmost is a goddess much like the others, bearing aloft some similar emblems to those already noted. They might all probably be easily recognized by any one well acquainted with the demonology of the country, as the *Sapta Mātaraḥ* or Seven Mothers.

At *Śāluvaṅkuppam*, close to the *Atiraṇacandēśvara* temple, there are six very similar figures of the village goddess, set up under a shed, and one or two rough unsculptured stones amongst them, perhaps to complete the proper number. From their appearance and the emblems they bear, these seven or eight figures would seem to be the *Śaktis* of the principal deities of the Hindu Pantheon. The eight figures are all in a row north and south facing the east, and a few yards in front of their centre, some way down the east slope of the mound stands a *liṅgam* without any *yoni*, *pāṇavaṭṭam* or pedestal to be seen.



It is a plain cylinder of black stone highly polished, with a hemispherical top, and having the pointed scroll mark, to denote the front (*Mukha*) turned to the east. There are several liṅgam stones lying scattered about and scarcely one in its original position undisturbed, except that in No. 19 of Madras Survey Map, those in the Atiraṇa-
 caṇḍeśvara temple at Śāluvaṅkuppam, and perhaps a few more. In the far greater number of instances the liṅgam socket is vacant and the liṅgam itself lost. There is an equally remarkable absence of the bull Nandī. I only recollect the megalith bull No. 38, and one or two on the shore temple (No. 6), besides those that have been pitched into the sea to help form its breakwater.

CHAPTER V.

GENERAL LIST OF OBJECTS AT THE SEVEN PAGODAS.

Group.	Map No.	Objects.	Proposed Order.
z.	1	Piḍāri-Amman (village goddess) temple	1
Z.	2	Piḍāri-kulam Quarry (N.) <i>Ratha</i> , monolithic shrine.	2
Z.	3	Piḍāri-kulam Quarry (S.) <i>Ratha</i> , monolithic shrine.	3
Z.	4	Valaiyan-kuṭṭai <i>Ratha</i> , monolithic shrine	4
U.	5	Piḍāri-Amman (village goddess) images, with linga.	52
R.	6	The Shore Temple (Aleva kōvil), stone building with two spires.	44
r.	7	Mahishāsura Rock; sculptured rock on sea-shore near No. 6.	45
S.	8	Chetty's Temple; ruined stone building	46
S.	(8½)	Lion Rocks; sculptured rocks on sea-shore near No. 8.	47
t.	9	Puṇḍarikapushkarinī; large masonry (lined) tank.	48
t.	10	A small four-pillared Maṇḍapa; on the north bank of No. 9.	48½
t.	11	A built temple or Maṇḍapa; ? The temple of Hanumān.	49
t.	12	Dolotsava Maṇḍapa; <i>Kiosk</i> of the swinging festival, on four tall piers.	50
T.	13	Sthalaśayanasvāmī (Vishṇu) modern temple: with oblong Vimāna.	51
t.	14	Emberumān (= <i>Our mighty Prince</i>); small Vishṇu shrine.	51½
F.	15	Kṛishṇa Maṇḍapa; pillared hall, before rock-cut pastoral scene.	18
E.	16	Pañca Pāṇḍava Cave Temple; liṅga shrine and inscription.	17
D.	17	Arjuna's Penance (N.): great rock-cut scene, with Nāga figures in centre.	16
d.	(17½)	Rock-cut slide and stairs	15
a.	18	Couple of Monkeys and Suckling small monolith ..	9
a.	19	Īśvara (Siva) Temple (recently restored): with linga.	10
a.	20	The Gopis', or Draupadi's churn	5

Note.—The letters of the alphabet indicate the various groups of objects and the order in which they may all be conveniently visited, also shewn by the figures in the right hand column. The more interesting and important are distinguished by capital letters. The Map No. in the 2nd column refers to the Madras Survey map, a reduction of which accompanies this paper.

GENERAL LIST OF OBJECTS AT THE SEVEN PAGODAS—

(Continued).

Group.	Map No.	Objects.	Proposed Order.
A.	21	Kapaliśvara or Nandagopalpalaiyam ; rock-cut façade, three cells and Durgā in relief on a buffalo's head.	6
a.	(21½)	Bhima's Kitchen-hearth and stairs ; natural open cavern.	6½
a.	22	Elephants, Ape and Peacock ; sculptured on the rock.	8
a.	23	The Butter-ball of Kṛishṇa (or Draupadī) ; stone boulder on slope of rock.	11
B.	24	Kāmarāja's shrine, Arjuna's <i>Ratha</i> , or The Gaṇeśa Temple : waggon-roofed monolith, Sanskrit inscription (put about 700 A.D.) on west wall.	12
C.	25	The Varāhasvāmī Maṇḍapa ; rock-cut portico with tableaux and cell.	13
c.	26	Lamp niche Rocks	14
O.	27	Rāyala Gopura, Foundation only, with four gateway pillars.	33 or 17
o.	(27¼)	Pañca Paṇḍava Burnt-offering pits	} The Monkeys' Rocks. } 33¼ 33½ 33¾
o.	27½	Do. Treasure pack (stone).	
o.	27¾	Do. Water channel.	
O.	28	Dharmarāja's Simhāsana ; lion-pillowed throne ..	32
o.	29	Draupadī's Bath ; or turmeric vat : a shapeless water-tank.	31
M.	30	(Anonymous) Four-pillared excavation	30
g.	31	Plain stone couch of Mahishāsura	26
J.	32	Yamapuri or Mahisha mardini cave, with tableaux and three cells.	27
j.	33	<i>Ratha</i> shrine begun : or roughly blocked out ..	25
K.	34	Oḷakkanneśvara Temple : stone building, roofless and gutted.	28
L.	35	Varāhasvāmī Rock Temple ; tableaux on rock within built enclosure. Old Tamil inscription (grant of land) on the rock adjacent : attributed to the year 1079 A.D.	29
q.	36	Lion monolith	36
Q.	37	Draupadī's <i>Ratha</i> : hut-shaped goddess-shrine, monolith.	37
q.	38	Colossal Bull monolith (Nandi)	38
Q.	39	Nakula's (or Arjuna's) <i>Ratha</i> , monolithic shrine, with Pyramidal roof.	39
q.	40	Elephant monolith	40
Q.	41	Sahadeva's <i>Ratha</i> ; apsidal monolithic shrine ..	41
Q.	42	Bhima's <i>Ratha</i> : big waggon-roofed monolith ..	42
Q.	43	Dharmarāja's <i>Ratha</i> ; monolithic shrine with pyramidal roof, in four stories. Śiva tableau in upper shrine cell : and many figures carved on the walls with superscriptions in Sanskrit of fifth or sixth century A.D.	43

GENERAL LIST OF OBJECTS AT THE SEVEN PAGODAS—

(Continued).

Group.	Map No.	Objects.	Proposed Order.
I.	44	Dharmaraja's Maṇḍapa : plain rock-cut porch with cells. Has a long inscription. Finished : carving spoilt.	24
H.	45	Arjuna's Penance (S.) ; 2nd edition : big rock-cut scene.	22
h.	46	Rock-cut Maṇḍapa excavation : façade only blocked out.	23
g.	47	Velugōti Siṃhama Nāyudu Maṇḍapa : rude stone building ; modern.	21
G.	48	Rāmānuja Maṇḍapa : finished cave : cells destroyed and tableaux dishd : has a little Sanskrit inscription on floor.	19
j.	49	Couch : plain stone bed	20
P or A.	50	Kōṭikal Maṇḍapa, cave : two plain pillars, cell and warders.	35 or 7
a			
P.	51	Kōṇēri Maṇḍapa N. cave : four-pillared chamber and cell. A word or two engraved on floor of cell.	34
P.	52	Kōṇēri Maṇḍapa S. cave : eight-pillared chamber and 5 cells.	34½
u.	53	"Geṅgoṇḍa Maṇḍapa." A modern or mediæval building.	53
V.	54	Mukunda Nāyanar Temple ; stone building ; nearly choked with sand. Śiva tableau in shrine niche.	54

OBJECTS AT ŚĀLUVANKUPPAM.

w.	(55)	Devanēri mounds : supposed ancient site	55
W1.	(56)	Iḍaiyan Paḍal Griffin-bowered shrine façade and sculptured rocks.	56
w2.	(57)	The Iḍaiyan Paḍal (= <i>Herdsmen's shelter screen</i>) : needle rock ; lamp niches on western face.	57
X3.	(58)	Atiraṇaṇḍa Pallava Maṇḍapa, cave : porch with shrine-cell, 3 liṅgas, 3 tableaux, and Sanskrit inscriptions ascribed to eighth century A.D.	58
y4.	(59)	Flat stone with old Tamil inscription, mentioning a grant of land.	59
y.	(60)	Inscribed Rock : deed of sale in old Tamil ascribed to the year 1116 A.D.	60
y.	(61)	Dated inscription on a stone at Pavalakkaran Cavaḍi in old Tamil : dated Śāka year 1157 (= 1235 A.D.)	61

LIST OF OBJECTS IN NEW ORDER AND REFERENCES TO CARR.

Order.	List of Objects at THE "SEVEN PAGODAS," Mavalivaram, in the order in which they may conveniently be visited.	Madras Survey Map Number.	References to each Object in Carr's Compilation.	
			Braddock's Guide (Carr, pp. 75-110).	Kāvalilakshmayya's Description, Carr, pp. 200-219.
1	Piḍāri-Amman (village goddess) temple; common, small, with flat roof; built.	1		Para. 29, p. 214. Temple with 4-armed village goddess: also a linga and yoni.
2	Piḍāri-kulam quarry Ratha monolith (N.); unfinished.	2	} No. 7, p. 78. Three small monolithic temples, unfinished.	Para. 29, p. 213. Three <i>Rathas</i> ; two with chambers and the third begun.
3	Piḍāri-kulam quarry Ratha monolith (S.); unfinished.	3		
4	Valaiyan-kutti Ratha monolith; unfinished.	4		
5	The churn of Draupadi, or of the Gopis. A hollowed boulder stone; artificial.	20		Para. 3, p. 200. Draupadi's churn.
6	Kapālisvara or NandaGopāl-pālayam; rock-cut façade with 3 shrine cells and tableaux.	21	No. 4, p. 77. Rock-cut façade 28' X 14' with 3 big excavated niches, and 4 steps to each. Figures of Mahādeva in centre, and 2 of Viṣṇu in the sides; Durgā on Mahiṣasura, adjoining.	Para. 3, p. 200. Three rock mandapas. Figures of Durgā, 4-armed, inside with attendants, and Durgā 8-armed outside treading under foot the head of Mahiṣasura.
..	Durgā trampling on Mahiṣasura.			
(6½)	Bhima's hearth or cooking place	(21½)		Para. 4, p. 200. Bhima sena's kitchen hearth.

LIST OF OBJECTS IN NEW ORDER AND REFERENCES TO CARR—(Continued).

Order.	List of Objects at THE "SEVEN PAGODAS," Māvalivaram, in the order in which they may conveniently be visited.	Madras Survey Map Number.	References to each Object in Carr's Compilation.	
			Braddock's Guide (Carr, pp. 75-110).	Kavalilakshmayya's Description, Carr, pp. 200-219.
7	Kōṭīkal mandapa: Plain rock-cut excavation with shrine cell and warders. May be visited after No. 34 the Kōṇēri caves.	50	No. 5, pp. 77, 78. Excavation 22' long 9' 6" deep and 8' high. Pārvati in the panels; 2 square piers, and a niche.	Paras. 27 and 24, p. 213. Two-pillared rock mantapa with two door-keepers and one chamber.
8	Elephants, peacock and monkey; rock-cut bas-relief group of animals only.	22	No. 5, p. 77. E. face of (No. 4) Rock. Elephant, monkey, and peacock carved on the rock.	Not mentioned.
9	Couple of monkeys and suckling: small monolithic group.	18	No. 2, p. 76. Group of monkeys.	Para. 2, p. 200. Two monkeys, vermin hunting.
10	Plain stone-built Śaiva village temple: with flat roof, recently restored. Linga in shrine.	19	No. 2, pp. 75, 76. No. 1 Black stone lingam in stone-built temple, 24' X 15', and about 12' high: roofless and dilapidated (in 1840).	Para. 1, p. 200. Īśvara T. Lord Clive took away the Nandi.
11	Draupadi's (or Kṛishna's) Butter-ball: natural round rock.	23	No. 2, p. 76. No. 3 Loose mass of rock 68 feet circumference and 25 feet high.	Para. 5, p. 200. Draupadi's butter-ball, gnawed by the cat seen in "The Penance."
12	Kamarāja's Temple or Arjuna's <i>Ratha</i> ; monolithic shrine with wagon roof, now called the Gaṇeśa Temple from the image of Pīlāiyār recently enshrined in it. Sanskrit inscription in porch. Date about 700 A.D.	24	No. 8, p. 79. Rock-cut temple, with image of Gaṇeśa in it, 20 feet long, 11' 6" broad and 28 feet high.	Para. 6, pp. 200-1. Arjuna's <i>Ratha</i> monolith. The Śiva linga has been removed, and an image of Vinayaka enshrined instead by the villagers.

13	The Varāhasvāmi (Vishnu) or Ulāgalanṭha Mandapa (finished); an ornamental excavation in the rock with sculptured tableaux in bas-relief.	25	No. 9, p. 81. Excavation: pretty frontage $22' \times 11'$, and $10' \times 6'$ high. Four panels carved Vāmana and Varāha (Vishnu) Avatāras, and Devi or Parvati (bis). Not mentioned	Para. 7, p. 201. Rock mandapa containing Varāhasvāmi, The 4-armed Gaja Lakshmi; Durgā 4-armed, and Trivikrama (8-armed).
14	Numerous lamp niches cut in the higher rocks, west face.	26	Not mentioned	Not mentioned.
15	Slide and Steps, cut in the rock alongside the great Bas-relief No. 16.	(17½)		Para. 8, pp. 203-11. Steps of Krishnasvāmi and Slide.
16	Arjuna's Penance north; famous rock-cut bas-relief ($90' \times 35'$); unfinished.	17	No. 11, p. 87. Story of the Tapas or Penance of Arjuna, $84'$ long and $30'$ high.	Para. 9, pp. 203-4. Arjuna's Penance (as in Kīrātā and Arjuna). 80 male and female figures coming to visit Siva.
17	Pañca Paṇḍava Mandapa: Façade and excavation in rock ($50' \times 40'$); unfinished. Līṅga shrine and inscription.	16	No. 12, p. 92. Excavation $50'$ long and $35'$ to $40'$ deep.	Para. 10, p. 205. The five Paṇḍavas, rock maṇḍapa.
(17½)	Rayala Gōpura, foundation only, built high up on the rocks; unfinished.	27	No. 14, p. 95. Foundation $66' \times 42'$.	Para. 11, p. 205. Rayala Gōpura, foundation.
18	Krishṇa Mandapa. Stone portico or covered court ($50' \times 30'$) unfinished, built in front of great Pastoral Bas-relief.	15	No. 13, p. 92. Krishṇa's Choultry; Rock sculpture forms back wall, Krishṇa supporting Govardhana and Bala Krishṇa piping. Sphynx figure at S. end. Size $47' \times 26' \times 12'$.	Para. 13, p. 205. Krishṇa Maṇḍapa: K. lifts Govardhana, Balarāma also and 16 men and women, 5 children, 2 bulls, 1 cow, 2 calves, 27 cows' heads, and 10 lions.
19	Rāmānuja Mandapa. Rock-cut façade and excavation ($24' \times 18'$); 3 interior cell shrines and sculptured tableaux demolished and dished. Two domical cell niches flank the cave, now vacant.	48	No. 17, p. 95. Excavation $25' \times 18'$ and $10' \times 6'$ high. Skeleton verandah, $48' \times 12'$ and $12'$ high.	Para. 14, p. 207. Rāmānuja Maṇḍapa $26' \times 20'$. Two small spired niches containing figures (in 1803).
20	Plain stone couch	49	P. 96. Stone bed $7' 3'' \times 3' 9''$.	Not mentioned.
21	Velugōṭi Sīṅgama Nayudu Mandapa: a rude stone building going to ruin.	47	No. 16, p. 95. Dilapidated building quite in ruins.	Para. 14, p. 207. Velugōṭi Sīṅgama Nayudu.

LIST OF OBJECTS IN NEW ORDER AND REFERENCES TO CARR—(Continued).

Order.	List of Objects at THE "SEVEN PAGODAS," Mavalivaram, in the order in which they may conveniently be visited.	Madras Survey Map Number.	References to each Object in Carr's Compilation.	
			Braddock's Guide (Carr, pp. 75-110).	Kavalilakshmayya's Description, Carr, pp. 200-219.
22	Arjuna's Penance, 2nd Edition : large rock-cut bas-relief, incomplete and much weather worn.	45	P. 96. Group of sculptures, same story of Arjuna.	Para. 17, p. 208. Penance of Arjuna.
23	Commencement of a rock-cut façade and excavation ; merely blocked out.	46	P. 103. Chisel marks	? Para. 15, p. 207. Monolithic Mandapa of two pillars begun.
24	Dharmarāja's Mandapa : small, neat, well-finished excavation, nearly complete. Figure sculptures dishied or erased. Inscription on wall.	44	P. 103. Finished excavation 21' X 17', and 9' high ; 4 strong pillars and 3 niches. Inscription.	Para. 16, p. 207. Dharmarāja's Mandapa.
25	Monolithic <i>Ratha</i> begun : merely blocked out.	33	P. 103. Chisel marks	Not mentioned unless para. 15, p. 207, be it (see 46).
26	Stone couch of Mahishāsura : very plain ..	31	P. 103. Hewn stone bed 10' 9" and 4' 9", with pillow.	Para. 19, p. 210. Mahishāsura's bed-pillow.
27	Mahisha-mardini- or Yamapuri Mandapa : Excavation ; unfinished. Chamber with shrine-cell of Siva and 3 tableaux in bas-relief.	32	No. 19, pp. 96-102. Excavated temple 33' X 17', and 13' high. Sculpture of Mahādeva, Nārāyaṇa and Durgā.	Para. 18, p. 208. Yamapuri Mandapa.
28	Olakkannēsvara Temple : stone structure on summit ; a gutted and ruinous shell.	34	No. 18, p. 96. Small ruined temple of sculptured stone ; 22' X 16', and 16' high.	Para. 19, p. 210. Olakkannēsvara Svāmi T.
29	The Varāhasvāmī Temple : a stone building thrown out from the rock, enclosing rock-cut bas-reliefs of the Varāha Avatāra, &c.	35	Not mentioned	Para. 20, p. 210. The Varāhasvāmī Temple, or "The Cave."

30	Anonymous excavation; unfinished: 4 piers and 4 niches begun.	30	(? Not mentioned)	..	..	Para. 21, p. 212. Solid Rock Mandapa, with no particular figures; also 24 steps on the hill, north side.
31	Draupadi's bath: a shapeless water-tank, cut in the rock.	29	No. 10, p. 86. Bath of Draupadi.			Para. 22, p. 212. Draupadi's turmeric vat.
32	Dharmaraja's Simhasana: lion-pillowed throne or couch.	28	No. 10, p. 86. Dharmaraja's Lion-throne, 9' 6" N.S. X 3' 6" broad.			Para. 23, p. 212. Lion-pillowed couch called Dharmaraja's throne (simhasana); also the Pāṇḍavas' 5 burnt-offering pits.
32 $\frac{1}{4}$	Pāṇca Pāṇḍavas' burnt-offering pits.	(27 $\frac{1}{2}$)				Para. 24, p. 212. Water channel and Treasure pack (stone). Rocks called the Monkeys' Rocks.
32 $\frac{1}{2}$	Channel and Treasure pack.					
32 $\frac{3}{4}$						
33	Rayala Gopuram: foundation only; plinth well carved; superstructure hardly begun). See above, between Nos. 17 and 18.	27	No. 14, p. 95. Foundation of rectangular building 66' X 42'. Four pillars 3' X 2', and 16' high.			Para. 11, p. 205. Rayala Gopura, foundation only and 4 pillars set up.
34	Kōṇeri Mandapa (north) excavation: has 4 lion-pillars and 1 shrine-cell; unfinished.	51	No. 6, p. 78. Rough excavation; 36' X 10', and 10' high: a big niche, rough.			Paras. 26 and 24, p. 213. Four-pillared Mandapa. Without a cell.
34 $\frac{1}{2}$	Kōṇeri Mandapa (south) excavation, (36' X 16'): has 5 shrine-cells with 10 warders; unfinished.	52	No. 6, p. 78. Excavation with 5 niches 36' X 16', and 10' high.			Para. 24, p. 213. There is a story connected with these.
35 or 36	Kōṭihal Mandapa: see above	50				Para. 25, p. 213. Twelve pillared Mandapa with 5 linga cells, and 10 door keepers.
36	Lion monolith: standing with head erect; as large as life or larger.	36	P. 104. Image of a lion; 7' long and 8' round the neck.			A Carṅkha on the north wall.
37	Draupadi's <i>Ratha</i> , or Goddess (Śakti) shrine; square stack-shaped monolith: nearly finished; only one (the ground floor) storey.	37	No. 21, p. 104. Monolithic Temple 11' square, and 16' to 18' high.			Para. 30, p. 214. A large lion, facing the north.
						Para. 30, p. 214. Monolithic Vimāna containing a 4-armed Śakti (holding a cakra) facing west. Name of the Śakti unknown.

LIST OF OBJECTS IN NEW ORDER AND REFERENCES TO CARR—(Continued).

Order.	List of Objects at THE "SEVEN PAGODAS," Māvālvaram, in the order in which they may conveniently be visited.	Madras Survey Map Number.	References to each Object in Carr's Compilation.	
			Braddock's Guide (Carr, pp. 75—110).	Kāvalilakshmayya's Description, Carr, pp. 200—219.
38	Bull Monolith : lying nearly buried in the sand.	38	P. 104. Colossal Brahmany Bull : head 4' long and base of horns 3' 3" apart.	Para. 31, p. 215. Large Sacred Bull facing west.
39	Nakula's <i>Ratha</i> ; Monolithic shrine : pyramidal temple roof.	39	No. 22, p. 105. Pyramidal temple 16' deep, 20' high and 11' in front.	Para. 32, p. 215. Nakula's Vimāna monolith ; with 18 sculptured figures ; Maṇḍapa at bottom vacant.
40	Elephant Monolith ; standing	40	P. 104. Image of an Elephant 14' long and 12' high.	Para. 33, p. 215. Monolithic Elephant facing south.
41	Sahadeva's <i>Ratha</i> ; Monolithic Shrine, Ap-sidal ; oblong with (north) end rounded ; roof half domed, half waggon-roofed.	41	No. 20, pp. 103, 104. Horse-shoe shaped temple 18' long, 11' wide, and 16' high.	Para. 33, p. 215. Sahadeva's Vimāna : two slender pillars ; Maṇḍapa vacant, faces south.
42	Bhima's <i>Ratha</i> : the great waggon-roofed monolith ; split and unfinished.	42	No. 23, p. 105. The largest temple ; roof elliptical. Design beautiful and elegant.	Para. 34, p. 215. Bhima's Vimāna monolith, "like a Maṇḍapa, and faces west."
43	Dharmarāja's <i>Ratha</i> ; Monolith ; 28 feet square and 35 feet high : pyramidal temple roof nearly finished, sculptured and inscribed with (Sanskrit) words in Pallava characters of the fifth and sixth centuries A.D. (Burnell, S.I.P., pp. 37, 38, 1878.) Basement unfinished.	43	No. 24, p. 106. Pyramidal temple 28' × 27', and 34 feet high. Many figures of Vishnu and Śiva carved in recesses on the walls.	Para. 35, p. 216. Dharmarāja's Vimāna, with 2 <i>pradakṣiṇa</i> terraces, 2 cells, 29 carved figures and 6 pillars in all. Some of the figures super-scribed in unknown characters.

44 or 48	Pundarikā-pushkarinī : big square masonry tank or lotus pond.	9	Not mentioned by Braddock ..	Para. 40, p. 217. Pundarikā-pushkarinī (tank) with māṇḍapa in centre : is 300 feet square and has 16 steps.
44½ or 48½	Modern-looking Māṇḍapa building (un-examined).]	10	Do.	Para. 40, p. 217. Four-pillared Māṇḍapa : ? for the Abhishekoṭṭsava of Sthalaśayana-svāmi ?
45 or 49	? Temple of Hanumān : image gone. See Carr, p. 217, K.L., para. 38.	11	Do.	? Para. 38, p. 217. Temple of Sri Hanumān (image gone).
46	Chetty's Temple : ruin of a small stone-built temple.	8	Do.	Not mentioned.
47	Sculptured Rocks on shore (south) : lion-embowered niches, lion and horse, &c.	(8½)	No. 28, p. 109. Sculptured shore rocks (south). Horse and Elephant head.	Para. 46, p. 219. Rock with niches, elephant's head, horse and figures. Para. 47, second rock with lion's face ; and No. 48, third rock, a big head, belly, and a small chamber.
48 or 44	The Shore Temple : stone structure on rocky headland. Two Vimāna or shrine spires, and a side chamber with Viṣṇu (Nārāyaṇa) lying with head to south. Principal (eastern) shrine has Siva tableau and big linga, and the smaller spired shrine only the Siva tableau altar-piece.	6	No. 26, pp. 107, 108. Two temples on sea-shore, area 1,600 square feet, and taller spire about 60' high, doorway east 7' 6" high and 6' wide. Mahādeva, Pārvatī and son Kārtikeya group in both temples.	Paras. 42 and 43, p. 218. Seven-walled Śiva temple, with two Garbhagrihas : one has the Śiva linga without yoni, Pārameśvara and Pārvatī, with young Subrahmaṇya Svāmī flanked by Brahma and Viṣṇu. 20 or 30 lions here ; the Nandis (bulls) have fallen from the walls and been broken. Within second wall lies Sri Mahā Viṣṇu with head to south.

LIST OF OBJECTS IN NEW ORDER AND REFERENCES TO CARR—(Continued).

Order.	List of Objects at THE "SEVEN PAGODAS," Mavalivaram, in the order in which they may conveniently be visited.	Madras Survey Map Number.	References to each Object in Carr's Compilation.	
			Braddock's Guide (Carr, pp. 75-110).	Kāvalilakshmayya's Description, Carr, pp. 200-219.
49 or 45	Sculptured Rocks on shore (north): Mahishasura Rock and shrine of Varuna.	7	No. 27, p. 109. Sculptured Shore Rock (north). Gigantic figure of Mahishasura (buffalo-headed).	Para. 44, p. 219. Monolithic temple of Varuna; contains sculptured figure of a king and Mahishasura.
50	Dolotsava Mandapa, or four-pillared swinging canopy. Kiosk of the swinging festival.	12	See Carr, pp. 34 and 51, and Pl. XI. Dolotsava Mandapam, 4 columns 27 feet high.	Para. 37, p. 217. Four-pillared swing mantapa for Kṛṣṇa-svami.
51	Sthalasayanāsvāmi (<i>local recumbent lord</i>) Vishnu Temple, commonly called the Modern Pagoda.	13	See Carr, p. 156, where the Sthalasayana Temple is put at about 100 years old.	Para. 12, p. 205. The Sthalasē-kharasvāmi T. Para. 36, p. 216, Sthalasayanāsvāmi Temple, entrance east, a Gopura and 5 doorways. The god lies with head to south. Goddess (Yalamaṅgaṇāncaru) shrine to south. The eastern or Rayala Gopura all in ruins.
51½	Emberumān Temple: small detached temple of Perumāḷ (Vishnu).	14	} Not mentioned 	} Not mentioned.
52	Piḍāri-Amman (village goddess) images, on mound with linga in front.	5		
53	"Gengonda Mandapa" (structural)	53		
54	Mukunda Nayanār: little old stone-built temple of Śiva.	54		
			P. 106. Small temple of hewn stone: ruined and vacant, said to be a Jain temple called Mukundaṇāyanār Kōvil.	Do.

55	Devanēri Mounds : indicative of ancient site.	$\frac{0}{55}$	No. 31, Pl. XXI. Devanēri mounds, p. 119.	Do.
56	Idaiyan Paḍal Mandapa : lion-bowered rock-cut shrine cell, façade and sculptured rocks.	$\frac{1}{56}$	Śāluvaṅkuppam. No. 34, Pl. XXI. Sculptured Rocks, pp. 119, 120.	Do.
57	Idaiyan Paḍal : herdsman's shelter scene, with lamp niches.	$\frac{2}{57}$	No. 34, Pl. XXI. Śāluvaṅkuppam sculptured rocks, pp. 119, 120.	Do.
58	Atiraṇacaṇḍa Pallava Maṇḍapa : excavation with lingam shrine and the Śiva tableau in centre, and 2 other lingams with the tableau, one on each side ; old Sanskrit inscriptions are engraved here of the seventh or eighth century A.D.	$\frac{3}{58}$	No. 30, Pl. XXI. Atiraṇacaṇḍa Pallava Maṇḍapa or Temple, p. 120.	Do.
59, 60	Inscribed Rocks in the old Tamil character attributable to the year 1115 A.D.	$\frac{4}{59}$ 60	No. 32, Pl. XXI. Inscribed stone. Flat, at ground level, p. 120. No. 33, Pl. XXI. Inscribed Rock. Old Tamil, p. 121.	Do. Do.
61	Inscription on the Pavaḷakkaran Cāvaḍi ; old Tamil of 1235 A.D.	$\frac{0}{61}$	See Carr, pp. 124, 125.	

SYNOPSIS.

Group.	Conveni- ent Order.	Madras Survey Map No.	Carr's Compilation.				Name or Title of Object.
			Braddock's Guide.		Kāvali- lakshmayya.		
			No.	Page.	No.	Page.	
							Carr's Plates.
z	1	1	..	..	29	214	..
Z	2	2	..	..	..	..	..
z	3	3	7	78	29	213	..
z	4	4	..	..	..	..	..
a	5	20	..	77	3	200	..
A	6	21	4	77	3	200	X
a	6½	(21½)	..	..	4	200	..
a or p	7 or 35	50	5	77	27	213	..
a	8	22	..	77	..	..	..
a	9	18	2	76	2	200	..
a	10	19	1	75	1	200	..
a	11	23	3	76	5	200	..
B	12	24	8	79	6	200	..
C	13	25	9	81	7	201	XIV
c	14	26	..	..	..	..	VI or IX
d	15	(17½)	..	..	8	203	..
D	16	17	..	..	..	..	..
E	17	16	11	87	9	203	I & II
F	17½ or 33	27	12	92	10	205	..
F	18	15	14	95	11	205	..
G	19	48	13	92	13	205	..
G	19	48	17	95	14	207	II
g	20	49	..	96	..	..	..
g	20	49	..	96	..	..	..
g	21	47	16	95	14	207	..
g	21	47	..	96	17	208	..
H	22	45	..	96	17	208	..
h	23	46	..	103	15	207	..

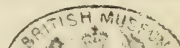
Pidari Amman (Village Goddess) Temple.
 Pidari Kulam Quarry *Ratha*, North.
 Pidari Kulam Quarry *Ratha*, South.
 Valaiyan Kutṭai *Ratha*.
 Draupadi's (or the Gopis) Churn.
 Kapaliśvara or Nanda Gopālpalayam Façade and Cells.
 Bhima's Kitchen Hearth.
 Kōṭikal Mandapa (Cave).
 Elephants, Ape and Peacock; rock carving.
 Couple of Monkeys and Suckling; small monolith.
 Siva (Linga) Shrine.
 The Butter-hall of Draupadi or Krishna.
 Kāmarāja's or Gaṇeśa Temple, or Arjuna's *Ratha*.
 Varāhasvami or Ulagalanṭha Mandapa (Cave).
 Lamp-niche Rocks.
 Slide and stairs cut in the rock.
 Arjuna's Penance, North, great bas-relief.
 Pañca Paṇḍava Mandapa (Cave).
 Rāyala Gopuram (foundation).
 Krishna Mandapa; built hall, and big bas-relief.
 Rāmanuja Mandapa Cave (dished).
 Plain stone Couch.
 Velugōṭi Singama Nāyudu, built Mandapa.
 Arjuna's Penance, South, big bas-relief.
 Commencement of a Rock Mandapa.

I	24	44	..	103	16	207	..	Dharmarāja's Mandapa (Cave).
i	25	33	..	103	p 15	207	..	Commencement of a Rock-cut <i>Ratha</i> .
J	26	31	..	103	19	210	.. & IV	Stone Couch of Mahishāsura.
J	27	32	..	96	18	208	III	Mahishamardini Mandapa or Yamapuri Cave.
K	28	34	18	96	19	210	..	Olakannesvara (built) Temple Ruin.
L	29	35	..	..	20	210	..	The Varāhasvami Temple <i>alias</i> "The Cave."
M	30	30	..	..	21	212	..	Anonymous Mandapa (Cave).
O	31	29	10	86	22	212	..	Draupadi's Bath.
O	32	28	10	86	23	212	..	Dharmarāja's Simhasana (Lion Throne).
O	33	27	14	95	11	205	..	Rāyala Gopuram (foundation only).
o	33 $\frac{1}{2}$	(27 $\frac{1}{2}$)	—	—	23	212	..	Pañca Pañḍavas' Burnt-offering Pits.
o	33 $\frac{1}{2}$	(27 $\frac{1}{2}$)	—	—	23	212	..	" " Treasure Pack Stone.
o	33 $\frac{1}{2}$	(27 $\frac{1}{2}$)	—	—	24	212	..	" " Water Channel.
o	34	51	6	78	26	213	..	Kōneri Mandapa (North) Cave.
P	34 $\frac{1}{2}$	52	6	78	25	213	..	Kōneri Mandapa (South) Cave.
P	35 or 7	50	5	77	27	213	..	Kōṭikal Mandapa Cave.
q	36	36	..	104	30	214	..	Lion ; monolithic statue.
Q	37	37	21	104	30	214	..	Draupadi's <i>Ratha</i> Hut-like (Monolith).
Q	38	38	..	104	31	215	..	Colossal Bull, Nandi (Monolith).
Q	39	39	22	105	32	215	..	Nakula's <i>Ratha</i> Pyramidal (Monolith).
Q	40	40	..	104	33	215	XIX	Elephant ; monolithic statue.
Q	41	41	20	103	33	215	..	Sahadeva's (The Apsidal) <i>Ratha</i> (Monolith).
Q	42	42	23	105	34	215	..	Bhima's Great Waggon-roofed <i>Ratha</i> (Monolith).
Q	43	43	24	106	35	216	..	Dharmarāja's (Big Pyramidal) <i>Ratha</i> (Monolith).
R	44	6	26	107	42	218	XVI	The (Alevara or) Shore Temple.
	45	7	27	109	43	219	XI	Mahishāsura Rock.
S	46	8	27	109	44	219	XXII	Chetty's Temple (Ruin).
S	47	(8 $\frac{1}{2}$)	—	109	46, 7, 8	219	..	Lion (sculptured) Rocks.
t	48	9	28	109	40	217	..	Pundarikā-pushkarinī (Lotus Pond) tank.
t	48 $\frac{1}{2}$	10	—	—	40	217	..	Built Mandapa.
t	49	11	—	—	p 38	217	..	? Temple of Hanumān.
t	50	12	—	{ 34	37	217	XI	Dolotsava Mandapa <i>kiosk</i> of the swinging festival.
				{ 51				

SYNOPSIS—(Concluded).

Group.	Convenient Order.	Madras Survey Map No.	Carr's Compilation.				Name or Title of Object.	
			Braddock's Guide.		Kavali-lakshmayya.			Carr's Plates.
			No.	Page.	No.	Page.		
T	51	13	(? 15)	(156)	{ 36 12	216 205	Sthalasayanavāmi (Vishnu) Temple.	
t	51½	14	—	—	—	—	Emberumān (Vishnu) Shrine	
U	52	5	—	—	—	—	Piḍari-Amman (Village Goddess) Images.	
u	53	53	—	—	—	—	? "Gēṅgonda Mandapa."	
V	54	54	(? 25)	106	—	—	Mukunda Nayanār (built) Temple.	
w	55	—	31	119	—	XXI	Devanēri Mounds (supposed site).	
W	56	1	34	119	—	—	Idaiyan Padal Lion Rocks.	
w	57	2	34	120	—	—	The Idaiyan Padal Needle Rock.	
X	58	3	30	120	—	{ XXIV XV }	Aṭṭaṇaṇḍa Pallava Maṇḍapa (Cave).	
Y	59	4	32	120	—	—	Inscribed Stone, Tamil.	
Y	60	4	33	121	—	—	Inscribed Rock, Tamil.	

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PLATE.

- I. ONE DRAWING (*facing page 38*).

